DOCUMENT RESUME

ED 070 468 LI 004 020

AUTHOR	Schneider, John H.
TITLE	Cancer Biochemistry and Host-Tumor Interactions: A Decimal Classification, (Categories 51.6, 51.7, and 51.8).
INSTITUTION	National Cancer Inst. (NIH), Bethesda, Md.
REPORT NO	NCI-STIO-7203
PUB DATE	24 Apr 72
NOTE	29p.; (0 References)
AVAILABLE FROM	National Technical Information Service, Springfield, Va., 22151. (PB-210 024; MF $.95, HC $3.00)
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Classification; Information Dissemination; *Information Retrieval; *Information Storage; *Medical Research; *Organization
IDENTIFIERS	*Cancer; Decimal Classification

ABSTRACT

This is a hierarchical decimal classification of information related to cancer biochemistry, to host-tumor interactions (including cancer immunology), and to occurrence of cancer in special types of animals and plants. It is a working draft of categories taken from an extensive classification of many fields of biomedical information. Because the classification identifies very small areas of cancer information, it can be used for precise matching of cancer researchers with useful documents or data in information systems, and for detailed analysis of large cancer research programs. (ED 025 270 and LI 004 018-LI 004 019 are related documents.) (Author)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

PB-210 024

CANCER BIOCHEMISTRY AND HOST-TUMOR INTERACTIONS: A DECIMAL CLASSIFICATION

(CATEGORIES 51.6, 51.7, AND 51.8)

ED 070468

ABSTRACT

This is a hierarchical decimal classification of information related to cancer biochemistry, to host-tumor interactions (including cancer immunology), and to occurrence of cancer in special types of animals and plants. It is a working draft of categories taken from an extensive classification of many fields of biomedical information.

Because the classification identifies very small areas of cancer information, it can be used for precise matching of cancer researchers with useful documents or data in information systems, and for detailed analysis of large cancer research programs.

John H. Schneider, Ph.D.
Scientific and Technical Information Officer
Office of Program Planning and Analysis
National Cancer Institute
Bethesda, Maryland

April 24, 1972

PUBLICATION NCI-STIO-7203

I.I 004 020

The use of this classification in an automated information system has been described in the following reference:

J. H. Schneider, "Selective Dissemination and Indexing of Scientific Information", Science 173, 300-308, 1971.

This paper describes the use of these classifications for precise matching of 103 cancer research scientists against a data base of 1,396 articles published in 12 leading cancer research journals.

The development and publication of this classification would have been very difficult without the conscientious effort of Mrs. Kathleen McManus who has worked with these categories for the past six years.

Thanks are also due to Miss Patricia Gorman and Miss Cynthia Friedman who keypunched cards from very rough drafts of the classification, and to Miss Sylvia Daves for help in some of the final stages of computer programming and printing.

John H. Schneider
April 24, 1972

MOST OF THE CATEGORIES CONTAINED IN THIS CLASSIFICATION WERE DEVELOPED IN THE EARLY 60'S. LITTLE TIME HAS BEEN AVAILABLE FOR MODIFYING THE CLASSIFICATION SINCE 1968. AS A RESULT, FAST MOVING FIELDS (SUCH AS CANCER VIROLOGY) ARE NOW CONSIDERABLY OUT OF DATE IN THAT THEY DO NOT CONTAIN CATEGORIES FOR THE MOST RECENT FINDINGS AND DEVELOPMENTS, SUCH AS SPECIFIC ANTICANCER AGENTS, VIRUSES, CARCINOGENIC AGENTS, ETC.

ED 070468

CANCER BIOCHEMISTRY AND HOST-TUMOR INTERACTION: A DECIMAL CLASSIFICATION (CATEGORIES 51.6, 51.7, AND 51.8)

PREFACE

Hierarchical classifications can be used for two different but related purposes:

1) In Information Systems:

Small areas of information can be precisely identified by categories in a detailed hierarchical decimal classification. These categories can be used to:

a) Index information in published documents,

b) Index information needs of individual scientists, and

c) Match scientists with indexed information and documents.

2) For Detailed Program Analysis:

Hierarchical decimal classifications can be used to organize the scientific content and substance of research programs.

This is accomplished by using categories from the classification to group related research projects together into:

a) Small research units consisting of several related projects,

b) Research areas consisting of several research units, and

c) Large program areas consisting of several research areas.

This clustering and "treeing" of research activities is an essential component of program analysis and program management activities. In addition, the hierarchical structure permits analysis at any desired level of detail -- ranging from broad summaries and overviews to individual research projects.

b.

CURRENT STATUS OF THIS CLASSIFICATION

A preliminary version of the entire cancer classification was published in 1968.* At that time, it consisted of typewritten pages which were subsequently modified by handwritten insertions and changes.

Since that time, it has been converted to punched cards, and an automated system called AUTOKLS has been written in PL/I to convert the cards to magnetic tape records. These records can be updated by another AUTOKLS program and can be printed out in indented, hierarchical format for use by indexers.

Still other parts of the AUTOKLS system are used for keeping track of cross-references between categories, for linking terms in alphabetic indexes to specific categories in the classification, and for updating the alphabetic index entries.

As mentioned in the abstract, this published version is a PRELIMINARY, WORKING DRAFT at a very early stage after the difficult conversion from typed and handwritten pages to punched cards.

For these reasons, there are some gaps and omissions in subject coverage, some topics covered only in broad outline with insufficient detail, some cases where several categories deal with the same topic in almost the same way, occasional cross-references that do not refer to the correct category number, and probably some spelling and simple clerical errors that have not yet been noticed. In addition, some cross-references refer to categories in portions of the classification which are not yet published.

However, because THIS CLASSIFICATION IS CONSTANTLY EVOLVING AND DEVELOPING it will never be available in final, fixed form. Instead, it will be published periodically to show current status. (Computer printouts of the most up-to-date version for use by indexers can easily be prepared weekly or monthly.) Most of the problems mentioned in the last paragraph will be corrected in the course of continuing updating and revision.

* John Schneider, Hierarchical Decimal Classification of Information Related to Cancer Research, (National Cancer Institute, Bethesda, Maryland). February 1968. 116 pp. (Available from National Technical Information Service, as PB-177-209.)

OUTLINE OF MAJOR CATEGORIES IN THIS DOCUMENT

51.6 BIOCHEMISTRY OF TUMORS AND TUMOR-BEARING HOSTS.

51.61 Nucleic acid biochemistry related to tumors and tumor-bearing hosts: DNA, RNA, nucleoside, nucleotide, purine, pyrimidine, and nucleoprotein biochemistry.

51.62 Biochemistry of proteins, amino acids, and other nitrogenous compounds in tumors and tumor-bearing hosts.

51.63 Lipid biochemistry related to tumors and tumor-bearing hosts.

51.64 Carbohydrate biochemistry related to tumors and tumor-bearing hosts.

51.65 Heterocyclic compounds (porphyrins, pteridines) in tumors and tumor-bearing hosts.

51.66 Selected areas of cancer-related biochemistry (not elsewhere classified).

51.67 Biochemistry of vitamins (content and metabolism) in tumors and tumor-bearing hosts.

51.68 Biochemistry of minerals, elements, and trace metals in tumors in tumor-bearing hosts.

51.69 Biochemistry of other substances (even if not yet characterized) related to tumors and tumor-bearing hosts.

51.7 HOST-TUMOR INTERACTIONS:
Physiological and pathological changes in tumor-bearing hosts. Immunology of tumors.

51.71 General.

51.72 Methods: Use of tumor cells inside diffusion chambers.

51.73 Metastasis, vascularization, and invasiveness of tumors.

51.74 Immunology of tumors and tumor-bearing hosts and tumor transplantation studies.

51.75 Non-biochemical, non-hormonal tumor-induced changes in the host: Host response to tumors.

51.76 Hormone-related tumor-host interactions and nature of endocrine gland tumors.

51.77 Effect of miscellaneous agents on tumor growth.

(51.8 is continued on next page)

51.8 CANCER IN SPECIAL AND UNUSUAL TYPES OF HOSTS.

51.81 General.

51.82 Cancer in sub-human primates.

51.83 Cancer in mammals other than man (general): Cancer in rats, mice, and domestic or farm animals such as dogs.

51.84 Cancer in non-mammalian vertebrates.

51.85 Cancer in invertebrates: Cancer in fruit flies and cockroaches.

51.86 Cancer in plants (all information about plant tumors should be listed here).

(The complete list of all sub-divisions included in this outline begins on page 1 and consists of 877 individual categories.)

OUTLINE OF ALL MAJOR CATEGORIES FOR CANCER RESEARCH INFORMATION

51.1 Selected General Topics Related to Cancer Research

51.2 Clinical Aspects of Diagnosis and Treatment

51.3 Pre-Clinical Aspects of Diagnosis and Treatment

51.4 Cancer Epidemiology and Etiology, including all types of Carcinogenesis and Co-Carcinogenesis

51.5 Cancer Pathology; Related Physiology, Cytology, and Tissue Culture Studies

51.6 Biochemistry of Tumors and Tumor-Bearing Hosts

51.7 Host-Tumor Interactions

51.8 Cancer in Specific Types of Hosts

51.6 BIOCHEMISTRY OF TUMORS AND TUMOR-BEARING HOSTS.
SEE ALSO: 51.515 FOR TUMOR PHYSIOLOGY (BLOOD SUPPLY, INVASIVENESS, METASTASIS).
SEE ALSO: 51.2124 FOR USE OF BIOCHEMICAL ALTERATIONS TO DETECT AND DIAGNOSE CANCER.
SEE ALSO: 51.3213 FOR THEORIES OF CANCER CHEMOTHERAPY BASED ON BIOCHEMICAL DIFFERENCES BETWEEN NORMAL AND CANCER CELLS.
SEE ALSO: 51.4545 FOR BIOCHEMICAL AND PHYSIOLOGICAL CHANGES IN HOSTS INFECTED WITH TUMOR VIRUSES.
SEE ALSO: 51.4552 FOR BIOCHEMISTRY OF CELLS INFECTED WITH ONCOGENIC VIRUSES.
SEE ALSO: 51.76 FOR BIOCHEMISTRY RELATED TO ENDOCRINE TUMORS AND THEIR HORMONES.
SEE ALSO: 51.513 FOR BIOCHEMISTRY OF SPECIFIC SUB-CELLULAR FRACTIONS.

51.60 GENERAL AREAS OF CANCER BIOCHEMISTRY.
51.601 GENERAL.
51.6011 NEW OR MODIFIED IN VIVO SYSTEMS FOR STUDYING CANCER BIOCHEMISTRY.
51.6012 NEW OR MODIFIED IN VIVO SYSTEMS FOR STUDYING CANCER BIOCHEMISTRY.
51.60121 GENERAL.
51.602 BROAD STUDIES OF BIOCHEMICAL DIFFERENCES (COMPOSITION, ENZYMES, METAB.) BETWEEN NORMAL CELLS OR TISSUES AND CANCER CELLSOR TISSUES.
SEE ALSO: 51.624 FOR ENZYMES LEVELS.
51.6021 GENERAL.
51.6022 ENZYMATIC DEDIFFERENTIATION OR ENZYME DELETION DURING TUMOR DEVELOPMENT. "CONVERGENCE" (GREENSTEIN).
51.6023 BIOCHEMICAL CONTROL MECHANISMS IN TUMORS; INASPPROPRIATE SYNTHESIS OF LARGE AMOUNTS OF COMPOUNDS DUE TO LOSS OF CONTROL MECHANISMS.
SEE ALSO: 51.76 FOR HORMONE-SECRETING TUMORS.
51.603 BROAD, GENERAL BIOCHEMICAL DIFFERENCES BETWEEN NORMAL HOSTS AND HOSTS WITH CANCER.
BIOCHEMISTRY OF BLOOD AND URINE IN TUMOR-BEARING VS. NORMAL HOSTS.
SEE ALSO: 51.214 FOR APPLICATION IN THE DIAGNOSIS OF CANCER.
SEE ALSO: 51.553 FOR LIVER CANCER IN GENERAL.
51.604 BIOCHEMICAL STUDIES OF MINIMAL DEVIATION TUMORS.
MORRIS HEPATOMAS (51238 78008 7288C).
51.605 UPTAKE AND TRANSPORT OF MACROMOLECULES (ALBUMIN) AND AND SMALLER MOLECULES BY TUMOR CELLS.
51.606 ACID-BASE BALANCE IN TUMORS.
PRODUCTION AND UPTAKE OF H IONS AND ACID PRODUCTION BY TUMORS.
PH OF TUMORS.
SEE ALSO: 51.6432 FOR PRODUCTION OF LACTIC AND PYRUVIC ACID.
SEE ALSO: 51.6334 FOR PRODUCTION OF KETO-ACIDS AND FOR FATTY ACIDS OF TUMORS.
51.607 CORRELATION OF GROWTH RATE WITH BIOCHEMICAL DEFICIENCIES.
51.608 BROAD BIOCHEMICAL STUDIES OF SPECIFIC TISSUES.
51.608253 LEUKEMIA.
51.608254 LYMPHOMA.
51.6083 MUSCLE.
51.6084 KIDNEY.
51.60851 EXOCRINE GLANDS.
51.6085101 GENERAL.
51.6085102 SALIVARY GLANDS.
51.60852 LUNG.
51.60853 LIVER.
51.60854 GASTROINTESTINAL TRACT.
51.60855 FEMALE REPRODUCTIVE SYSTEM.
51.60855OV OVARIES.
51.60855UT UTERUS, CERVIX, ENDOMETRIUM.
51.60855BR BREAST.
51.60855VA VAGINA AND SECONDARY SEX TISSUE.
51.60856 MALE REPRODUCTIVE SYSTEM.
51.60856PR PROSTATE.
51.60857 OTHER ENDOCRINE GLANDS AND RELATED TISSUES.
51.6086 NERVOUS SYSTEM.
51.60865 BRAIN.
51.6087 SENSORY SYSTEMS.
51.60882 CONNECTIVE TISSUE.
51.60883 SKIN.
51.608833 MELANOMAS.
51.60884 BONE.

51.61 NUCLEIC ACID BIOCHEMISTRY RELATED TO TUMORS AND TUMOR-BEARING HOSTS.
51.610 GENERAL.
51.6101 HISTOCHEMICAL AND CYTOCHEMICAL STUDIES OF NUCLEIC ACIDS IN TUMORS.
SEE ALSO: 51.7312 FOR USE TO STUDY GROWTH RATE OF TUMORS.

51.61011 GENERAL.
51.61018 THYMIDINE UPTAKE, IN VIVO ONLY.
51.611 STUDIES INVOLVING BOTH RNA AND DNA AND NUCLEOPROTEIN.
51.6111 CHEMICAL AND PHYSICAL PROPERTIES OF NUCLEIC ACIDS AND NUCLEOPROTEINS FROM TUMORS.
OTHER NON-METABOLISM INFORMATION.
51.61117 FORMATION OF HYBRIDS.
51.61118 PROPERTIES OF TUMOR DNA.
51.61119 PROPERTIES OF TUMOR RNA.
51.6116 METABOLIC INFORMATION ABOUT TUMOR NUCLEIC ACIDS.
51.61221 METHODS FOR ISOLATING DNA.
51.61224 DNAASE IN TUMORS.
51.6126 METABOLISM AND BIOSYNTHESIS OF DNA.
51.61268 UPTAKE OF PRECURSORS INTO DNA - OVERALL LEVEL.
51.61269 GROSS ASPECTS OF DNA SYNTHESIS INVOLVING SPECIFIC ENZYME PATHWAYS.
51.6131 RNA CONTENT OF TUMOR CELLS.
51.61322 ISOLATION OF RNA.
51.61324 RNASE.
51.6133 PROPERTIES OF RNA.
51.61333 PHYSICAL PROPERTIES OF RNA.
51.6136 RNA BIOSYNTHESIS.
51.6137 DEGRADATION AND TURNOVER OF RNA.
51.614 TUMOR NUCLEOTIDES AND NUCLEOSIDES AND THEIR METABOLISM.
NUCLEOTIDE AND NUCLEOSIDE KINASES.
TRANSPHOSPHORYLATION REACTIONS.
NUCLEOTIDE REDUCTASES.
51.615 BIOSYNTHESIS AND METABOLISM OF PURINES IN TUMORS.
ADENISENE DEAMINASE.
51.616 BIOSYNTHESIS AND METABOLISM OF PYRIMIDINES IN TUMORS:
THYMIDYLATE SYNTHETASE.
ASPARTIC TRANSCARBAMYLASE.
51.617 INHIBITION OF NUCLEIC ACID BIOSYNTHESIS IN TUMORS AND TUMOR-BEARING HOSTS.
INHIBITION BY HYDROXYUREA AND BY ACETOXYOXANIDE.
51.6171 GENERAL.
51.6172 INHIBITION OF DNA.
51.6173 INHIBITION OF RNA.

51.62 BIOCHEMISTRY OF AMINO ACIDS, PROTEINS, PEPTIDES, ENZYMES, AND OTHER NITROGENOUS COMPOUNDS IN TUMORS AND TUMOR BEARING HOSTS.
SEE ALSO: 51.646 FOR NITROGENOUS POLYSACCHARIDES.
SEE ALSO: 51.6906 FOR DELTA-AMINOLEVULINIC ACID.
51.621 GENERAL; NITROGENOUS CONSTITUENTS OF TUMORS AND HOSTS (GENERAL).
AMINO ACID LEVELS IN TUMORS AND TUMOR-BEARING HOSTS AND AMINO ACID UPTAKE.
51.622 AMINO ACID BIOCHEMISTRY AND METABOLISM IN TUMORS AND HOSTS.
51.62201 GENERAL.
51.62202 TRANSAMINASES.
51.62203 AMINO ACID OXIDASES.
51.62204 AMINO ACID DECARBOXYLASES.
51.62205 OPEN.
51.62206 AMINO ACID UPTAKE AND TRANSPORT.
AMINO ACID POOLS.
51.6221 GENERAL.
51.62211 ALANINE AND BETA-ALANINE AND METABOLITES.
51.62212 OPEN.
51.62213 ARGININE, CITRULLINE, ORNITHINE, AND HOMOCITRULLINE AND HOMOARGININE AND THE UREA CYCLE AND TRANSCARBAMYLASES IN GENERAL.
51.62214 ASPARTIC ACID AND METABOLITES AND ASPARAGINE.
SEE ALSO: 51.616 FOR ASPARTIC TRANSCARBAMYLASE.
SEE ALSO: 51.32750101 FOR ANTICANCER ACTIVITY OF ASPARAGINASE.
51.62215 OPEN.
51.62216 CYSTEINE AND CYSTINE AND METABOLITES AND -SH METAB. IN TUMORS.
51.622161 GENERAL.
51.622162 CYSTEINE AND CYSTINE.
51.622163 GLUTATHIONE LEVELS.
51.62217 GLUTAMIC ACID AND METABOLITES.
51.62218 GLUTAMINE LEVELS AND METABOLISM AND GLUTAMINASE.
SEE ALSO: 51.32824 FOR USE OF GLUTAMINASE FOR TREATING TUMORS.
51.62219 GLYCINE AND METABOLITES.
51.622201 HISTIDINE AND METABOLITES (HISTAMINE) UROCANIC ACID.
SEE ALSO: 51.76181 FOR HISTAMINE LEVELS IN TUMOR BEARING HOSTS.

51.6222011 GENERAL.
51.6222012 METABOLISM OF HISTIDINE; UPTAKE AND DEGRADATION.
51.6222013 HISTIAMINE AND TUMORS.
51.62221 HYMOCYSTEINE AND METABOLITES.
51.62222 HOMOSERINE AND METABOLITES.
51.62223 HYDROXYPROLINE AND METABOLITES.
HYDROXYPROLINE-RICH PROTEINS IN PLASMA OF PATIENTS WITH HODGKIN'S DISEASE.
INCREASED HYDROXYPROLINE EXCRETION IN BONE METASTASIS OF BREAST CANCER.
SEE ALSO: 51.623701 FOR COLLAGEN IN TUMORS.
51.62224 ISOLEUCINE AND METABOLITES.
51.62225 LEUCINE AND METABOLITES.
51.62226 LYSINE AND METABOLITES (INCLUDING HOMOCITRULLINE & HOMOARGINE).
51.62227 METHIONINE AND METABOLITES.
51.62228 OPEN.
51.62229 PHENYLALANINE AND METABOLITES.
51.62230 PROLINE AND METABOLITES.
51.62231 SERINE AND METABOLITES (CHOLINE).
51.62232 THREONINE AND METABOLITES.
51.62233 TRYPTOPHANE AND METABOLITES.
SEE ALSO: 51.6244 FOR USE OF TRYPTOPHENE PYROLASE AS A TOOL TO STUDY ENZYME INDUCTION.
SEE ALSO: 51.55421 FOR CARCINOID TUMORS.
SEE ALSO: 51.76182 FOR CARCINOID SYNDROME IN PATIENTS WITH NON-CARCINOID TUMORS.
SEE ALSO: 51.41432 FOR ROLE OF TRYPTOPHANE METABOLITES IN BLADDER CARCINOGENESIS.
51.622331 GENERAL.
51.622332 STUDIES OF PATIENTS WITH THE MALIGNANT CARCINOID SYNDROME.
51.622333 STUDIES OF PATIENTS WITH BLADDER CANCER.
SEE ALSO: 51.4043 FOR STUDIES SPECIFICALLY RELATED TO THE ETIOLOGY OF BLADDER CANCER.
51.622334 STUDIES OF MICE WITH MAST-CELL TUMORS.
TRYPTOPHANE METABOLISM.
51.622335 NAD PRODUCTION FROM TRYPTOPHANE IN TUMOR-BEARING HOSTS.
51.62234 TYROSINE AND METABOLITES.
SEE ALSO: 51.473 FOR THYROXINE BIOCHEMISTRY AND METABOLISM IN RELATION TO CANCER.
51.622341 GENERAL.
51.622343 PRODUCTION AND METABOLISM OF CATECHOL AMINES.
51.622344 TYROSINASE, DOPA OXIDASE, AND MELANIN PRODUCTION IN MELANOMAS AND PROPERTIES OF MELANIN.
51.62235 VALINE AND METABOLITES.
51.6224 COMPOUNDS RELATED TO AMINO ACIDS.
51.62241 CREATINE AND CREATININE.
51.62241 CREATINURIA IN EXPERIMENTAL ANIMALS WITH CANCER.
CREATINURIA IN THE PRE-TERMINAL STAGES OF CANCER.
51.62242 POLYAMINES AND DIAMINES (SPERMINE, SPERMIDINE AND OTHER AMINES; CHOLINE).
SEE ALSO: 51.6381 FOR OCCURRENCE OF THESE AMINES IN MALIGNOLISM.
51.623 PEPTIDES, PROTEINS, PROTEIN METABOLISM, AND PROTEIN SYNTHESIS AND BIOCHEMISTRY IN TUMORS AND TUMOR-BEARING HOSTS.
51.6231 GENERAL.
51.62322 TYPES OF TUMOR PROTEINS.
51.6232611 OPEN.
51.6232612 FACTORS TO CONTROL AND STIMULATE OR INHIBIT PROTEIN SYNTHESIS IN TUMORS.
51.623263 ENZYMATIC STUDIES OF PROTEIN SYNTHESIS.
EFFECT ON RIBOSOMES AND POLYRIBOSOMES M-RNA, S-RNA, AND NUCLEIC ACID ACTIVITY.
51.623264 INHIBITION OF PROTEINS SYNTHESIS.
51.62327 TURNOVER, UPTAKE AND RELEASE IN VIVO AND UPTAKE OF SERUM PROTEINS.
51.6233 SERUM PROTEINS (AND URINARY PROTEINS) IN TUMOR-BEARING HOSTS.
51.62331 GENERAL.
SERUM PROTEIN LEVELS IN TUMOR BEARING HOSTS AND REGULATION OF THOSE LEVELS.
51.623312 METHODS FOR FRACTIONATION AND IDENTIFICATION OF SERUM PROTEINS IN CANCER.
51.623316 BIOSYNTHESIS AND TURNOVER OF SERUM PROTEINS AND MECHANISM OF THIS SYNTHESIS.

51.623317 UTILIZATION OF SERUM PROTEINS OF CANCER CELLS (BENCE-JONES OR OTHER IMMUNOPROTEINS).

51.62332 BIOCHEMISTRY AND PROPERTIES AND PHYSIOLOGY OF BENCE-JONES PROTEINS, MYELOMA (OR PLASMA-CELL TUMOR) PROTEINS, IMMUNOGLOBULINS, AND MACROGLOBULINS AND M-PROTEIN IN CANCER PATIENTS.
TYPE I AND TYPE II BENCE-JONES PROTEINS.
CATABOLISM AND EXCRETION OF BENCE-JONES PROTEINS.
SYNTHESIS OF GAMMA GLOBULINS BY PLASMA CELL TUMORS (ADJ-PL-5).
SEE ALSO: 51.743401 FOR IMMUNITY OF THESE PROTEINS.
SEE ALSO: 47.35 FOR PROPERTIES OF GAMMA GLOBULINS IN GENERAL.
SEE ALSO: 47.853104 FOR BENCE-JONES PROTEINS AS ANTIGENS.
DIFFERENCES IN FINGERPRINT PATTERNS OF PROTEINS PRODUCED BY TUMORS INDUCED WITH CARCINOGENS (MINERAL OIL).

51.623328 MECHANISM OF SYNTHESIS OF THESE PROTEINS AND RELATED BIOCHEMISTRY.

51.623328 MACROGLOBULINS.

51.6623329 IDENTIFICATION OF THOSE TYPES OF CELLS WHICH SYNTHESIZE BENCE-JONES PROTEINS OR MYELOMA PROTEINS AND SYNTHESIS BY THESE CELLS.

51.62333 BLOOD CLOTTING PROTEINS.
LOCALIZATION AND LEVEL OF FIBRIN, FIBRINOGEN, THROMBIN, AND THROMBOPLASTIN IN TUMORS AND TUMOR-BEARING HOSTS.

51.62334 ALBUMINS AND GLOBULINS NOT INCLUDED ABOVE (LEVELS AND PROPERTIES).
ALBUMIN AND GLOBULIN LEVELS IN GENERAL AND UPTAKE OF THESE PROTEINS BY TUMORS.
SEE ALSO: 51.75565 FOR CORTICOSTEROID BINDING GLOBULIN IN CANCER PATIENTS.

51.62335 GLYCOPROTEINS AND MUCOPROTEINS (LEVELS AND PROPERTIES).
SEE ALSO: 51.645 AND 51.646 FOR POLYSACCHARRIDES AND MUCOPOLYSACCHARRIDES IN TUMORS.
HAPTOGLOBULINS, SEROMUCOIDS (SERUM ALPHA-2-GLYCOPROTEIN).
SEE ALSO: 12.322 FOR GLYCOPROTEINS AND MUCOPROTEINS IN GENERAL.
SEE ALSO: 14.5 FOR MUCOIDS AND N-COMBINED CARBOHYDRATES.
ALPHA-1-GLYCOPROTEIN LEVELS IN CANCER.
ALPHA-2-(ACUTE PHASE) GLOBULIN (G GLYCOPROTEIN).

51.62336 SPECIAL SERUM PROTEINS.
TETRACYCLINE-BINDING PROTEINS.

51.6233601 TETRACYCLINE-BINDING PROTEINS.
OTHER TETRACYCLINE-BINDING PROTEINS.

51.6233602 LIPOPROTEINS.
SEE ALSO: 51.21742 FOR USE IN DIRECT VISULALIZATION OF TUMORS (IN VIVO STIMULATION).

51.6234 PROTEINS ABSENT OR "DELETED" FROM TUMORS:
ABSENCE OF PROTEINS DETERMINED BY THE H-2 LOCUS IN SARCOMA I.
SEE ALSO: 51.460023 FOR THE DELETION HYPOTHESIS.

51.6235 PEPTIDASES, PROTEASES AND PROTEOLYTIC ENZYMES IN TUMORS AND TUMOR-BEARING HOSTS.

51.6236 SPECIFIC PEPTIDES IN TUMORS.

51.623601 GENERAL.

51.623602 TOXOHOMONE (CATALASE DEPRESSING FACTOR) IN CANCER PATIENTS (A BASIC POLYPEPTIDE IN TISSUES OF CANCER PATIENTS).

51.623603 GSH (SEE 51.62216).

51.6237 OTHER PROTEINS IN TUMORS.

51.623701 COLLAGEN IN TUMORS.
SEE ALSO: 19.15833 FOR EFFECT OF THESE ANTIBODIES ON CATALASE.
SEE ALSO: 51.62223 FOR HYDROXYPROLINE METABOLISM IN TUMORS AND TUMOR BEARING HOSTS.

51.624 ENZYMES AND ISOZYMES IN TUMORS AND TUMOR-BEARING HOSTS.
CHANGES IN ENZYME LEVELS DURING TUMOR GROWTH.
SEE ALSO: 51.4600536 FOR EFFECT OF CARCINOGENS ON ENZYMES.
SEE ALSO: 51.4601024 FOR EFFECT OF AROMATIC HYDROCARBONS ON ENZYMES.
SEE ALSO: 51.323442 FOR ROLE OF ENZYMES IN TUMOR-BEARING HOSTS IN TUMOR REGRESSION.
SEE ALSO: 51.604 FOR ENZYME LEVELS IN "MINIMAL DEVIATION" TUMORS.
SEE ALSO: 51.602 FOR BROAD STUDIES OF METABOLIC DIFFERENCES BETWEEN NORMAL CELLS AND TUMOR CELLS OR CELLS OF TUMOR-BEARING HOSTS.
SEE ALSO: 51.3212 FOR CANCER CHEMOTHERAPY BASED ON THESE DIFFERENCES.
SEE ALSO: 51.46 FOR ENZYMES INVOLVED IN THE METABOLISM OF CARCINOGENS.
SEE ALSO: 51.460124 FOR EFFECT OF AROMATIC HYDROCARBONS ON ENZYME LEVELS.
SEE ALSO: 51.214 FOR USE OF ENZYMES IN TUMOR DIAGNOSIS.
SEE ALSO: 51.460023 FOR DELETION THEORY OF CARCINOGENESIS.
SEE ALSO: 51.6235 FOR PEPTIDASES AND PROTEASES IN TUMORS.

51.624001 GENERAL.
51.6240011 GENERAL.
51.6240101 ADENOSINE DEAMINASE.
51.6240102 ALDOLASE.
51.6240501 ESTERASES.
51.6240701 BETA-GLUCINAMIDASE.
51.6240702 GLUCOSE-6-PHOSPHATE.
51.6240702 GLYCOLYTIC ENZYMES.
51.6240703 L-GLYCEROL-3-PHOSPHATE DEHYDROGENASE.
51.6240901 ISOCITRIC DEHYDROGENASE.
51.6241101 KREBS CYCLE ENZYMES.
51.6241201 LACTIC DEHYDROGENASE.
51.6241202 LYSOSOMAL ENZYMES AND ACID HYDROLASES.
51.6241301 MALIC DEHYDROGENASE.
51.6241401 NADASE.
51.6241601 PHOSPHATASES.
51.6242001 TRYPTOPHANE PYROLASE.
51.6243 GENERAL INFORMATION.
51.62431 HISTOCHEMICAL AND CYTOCHEMICAL METHODS FOR MEASURING ENZYME LEVELS IN TUMORS OR HOSTS.
51.6244 LEVELS OF ENZYMES AND ISOENZYMES AND LISTS OF ENZYMES IN SERUM, URINE, CELLS AND TISSUES OF TUMORS AND TUMOR-BEARING HOS
51.62432 OTHER METHODS FOR MEASURING ENZYME LEVELS IN TUMORS OR HOSTS.
51.62433 ENDOGENOUS ENZYME INHIBITORS AND CONTROL MECHANISMS IN TUMORS OR HOSTS. FEEDBACK INHIBITION IN TUMORS.
SEE ALSO: 51.634 FOR ABSENCE OF FEEDBACK INHIBITION OF CHOLESTEROL BIOSYNTHESIS IN HEPATOMAS.
SEE OTHER CLASSES OF 51.6 FOR SPECIFIC ENZYMES (LISTED UNDER SUBSTRATES).
51.6245 ENZYMES THAT METABOLIZE DRUGS.
51.6246 INDUCTION IN TUMORS AND FACTORS WHICH AFFECT IT (INDUCTION OF TRYPTOPHANE PYROLASE BY CORTISONE OR TRYPTOPHANE).
51.625 METABOLISM OF NITROGENOUS COMPOUNDS NOT LISTED ELSEWHERE.

51.63 LIPID BIOCHEMISTRY, METABOLISM, AND RELATED ENZYMES IN TUMORS AND TUMOR-BEARING HOSTS.
SEE ALSO: 51.7422 FOR LIPID ANTIGENS FROM TUMORS.
51.631 GENERAL.
51.6311 OPEN.
51.6312 LIPASES AND ESTERASES IN TUMORS.
51.632 SERUM LIPIDS AND LIPOPROTEINS AND OTHER LIPID PROTEINS.
51.633 NEUTRAL FATS AND FATTY ACIDS.
FATTY ACID METABOLISM.
SEE ALSO: 51.6312 FOR LIPASES AND ESTERASES.
51.6331 GENERAL.
51.6332 N-FATS AND THEIR METABOLISM.
51.6334 FATTY ACID LEVELS OF CIS VACCENIC (NOT METABOLISM OR TISSUE CULTURE)AND OLEIC AND OTHER UNSATURATED FATTY ACIDS IN TUMORS AND TUMOR-BEARING HOSTS.
51.6334 FATTY ACID METABOLISM IN TUMORS.
51.63342 BIOSYNTHESIS OF FATTY ACIDS.
51.63343 DEGRADATION OF FATTY ACIDS.
51.634 BIOCHEMISTRY AND METABOLISM OF ENDOGENOUS AND/OR NORMAL STERIODS.
SEE ALSO: 51.3311 FOR BIOCHEMISTRY AND METABOLISM OF EXOGENOUS AND/OR SYNTHETIC STERIODS IN ANIMALS.
51.6341 GENERAL; URINARY AND PLASMA STEROIDS IN TUMOR-BEARING HOSTS.
51.6342 CONTENT, BIOCHEMISTRY, AND METABOLISM OF STEROID SEX HORMONES (ESTROGENS, TESTOSTERONE) IN TUMORS AND TUMOR-BEARING HOSTS.
51.63421 URINARY AND PLASMA STEROIDS IN TUMOR-BEARING HOSTS.
SEE ALSO: 13.
51.634211 GENERAL.
51.634212 ESTROGENS.
51.634213 SEX HORMONE LEVELS IN HUMANS.
51.634213 PROGESTERONE.
51.634214 TESTOSTERONE AND ANDROSTERONE AND ANDROSTENEDIONE.
51.6343 CONTENT, BIOCHEMISTRY, AND METABOLISM OF CHOLESTEROL IN TUMORS AND HOSTS. ABSENCE OF FEEDBACK INHIBITION OF CHOLESTEROL BIOSYNTHESIS IN HEPATOMAS.
51.6344 CONTENT, BIOCHEMISTRY, AND METABOLISM OF CORTICOIDS IN TUMORS AND HOSTS. CORTICOID BINDING PROTEIN IN TUMOR-BEARING HOSTS.
51.635 PHOSPHOLIPID AND METAL BINDING FACTORS BIOCHEMISTRY AND PHOSPHOLIPASES.
51.6352 ISOLATION AND PROPERTIES.

51.6356 BIOSYNTHESIS.
51.636 PIGMENTED LIPIDS IN CANCER PATIENTS.
51.637 GLYCOLIPIDS.
CEREBROSIDES AND SPHIOGO LIPIDS AND GALACTOSIDES.
CYTOLIPIN H (LACTOSYLCERAMIDE) AND CYTOLIPIN G AND CYTOLIPIN K (A GLOBOSIDE-LIKE GLYCOLIPID).
GLYCOLIPIDS IN CELL SURFACES.
SEE ALSO: 51.5162 FOR AGGLUTINATION OF CANCER CELLS BY LIPASES.
SEE ALSO: 51.7[illegible] FOR CYTOLIPIN H AND K AS LIPID HAPTENES FROM TUMORS.
SEE ALSO: 47.873 FOR ANTIGENICITY OF THESE LIPIDS.
51.638 OTHER LIPIDS AND LIPID-LIKE COMPOUNDS.
51.6381 MALIGNOLIPIN (POSSIBLY A MIXTURE OF PICRATES).
51.6382 ONCOLIPIN.
51.6383 LYSIQUINONE.

51.64 CARBOHYDRATE BIOCHEMISTRY, METABOLISM, AND RELATED ENZYMES IN TUMORS AND HOSTS.
SEE ALSO: 51.637 FOR GLYCOLIPIDS.
SEE ALSO: 51.62335 FOR GLYCOPROTEINS AND MUCOPROTEINS.
51.641 GENERAL.
51.642 SIMPLE SUGARS.
51.643 AEROBIC AND ANEROBIC GLYCOLYSIS, RESPIRATION AND RELATED PHENOMENA; ENZYMES AND SUBSTRATES INVOLVED.
IN VIVO AND IN VITRO STUDIES.
SEE ALSO: 51.606 FOR TUMOR PH AND PRODUCTION OF ACID BY TUMORS IN GENERAL.
SEE ALSO: 51.67582 FOR RESPIRATION OF TUMORS.
51.6431 GENERAL.
51.64311 OPEN.
51.6432 COMPARISON OF AEROBIC AND ANAEROBIC PATHWAYS AND METABOLISM.
51.64326 IN BRAIN AND NERVOUS SYSTEM.
51.64327 IN REPRODUCTIVE AND SEX AND RELATED TISSUES IN MALE.
51.64328 ENZYMES IN SKIN.
51.6435 INHIBITION OF GKL.
FACTORS WHICH CONTROL THIS.
SEE ALSO: 51.6937 FOR TUMOR PH (RELATED TO LACTIC ACID LEVELS).
51.6433 GLUCOSE METABOLISM AND LACTATE PRODUCTION; INCREASED LACTIC DEHYDROGENASE (LDH) LEVELS IN RELATION TO CANCER.
SEE ALSO: 62.41830 FOR RELATION TO THE RILEY AGENT.
SEE ALSO: 51.7617 FOR HYPOGLYCEMIA.
GLUCOSE LEVELS IN TUMOR-BEARING HOSTS.
INCREASED PHOSPHOHEROSISOMERASE LEVELS IN CANCER PATIENTS.
INHIBITION BY 2-DEOXYGLUCOSE IN CANCER PATIENTS.
SEE ALSO: 51.7617 FOR HYPOGLYCEMIA PRODUCED BY NON-PARATHYROID TUMORS.
HYPO- AND HYPERGLYCEMIA ASSOCIATED WITH TUMORS.
SEE ALSO: 51.76 GOT INDULIN-LIKR MSYRTISL.
51.6434 INTERCONVERSIONS OF SUGARS.
INHIBITION BY DIAMINOACRIDINE DYES.
51.644 PENTOSE CYCLE AND UNUSUAL PATHWAYS OF CARBOHYDRATE METABOLISM.
51.6441 GENERAL.
51.645 DISACCHARIDES, OLIGOSACCHARIDES, AND NON-NITROGENOUS POLYSACCHARIDES AND RELATED ENZYMES.
GLYCOGEN AND GLYCOGEN ACCULATION OR DISAPPEARANCE AND GLYCOGEN BREAKDOWN AND PHOSPHYLASES.
NITROGENOUS POLYSACCHARIDES AND PROTEIN-BOUND SUGARS AND RELATED MUCOSUBSTANCES AND ENZYMES WHICH HYDROLYZE THEM (NEURAMINIDASE (SIALASE).
MUCOPOLYSACCHARIDES.
SIALIC ACIDS AND SIALIDASES (CHONDROITIN SULFATE).
SIALOMUCINS.
HEXOSE AMINES.
CHONDROITENS AND BLOOD GROUP SUBSTANCES.
HYLMONIDASE.
SEE ALSO: 51.62335 FOR MUCOPROTEINS.
SEE ALSO: 51.74632 FOR EFFECT OF TUMORS ON HOST BLOOD GROUP SUBSTANCES.
51.64697 IN TISSUES AND IN CANCER TISSUE PARTICLES (NOT SERUM LEVELS).
51.64698 HEPARIN IN TUMORS AND TUMOR-BEARING HOSTS.
SEE ALSO: 51.7683 FOR MAST CELLS IN TUMORS.
51.647 GLYCOSIDES AND GLYCOSIDASES.
51.6471 GENERAL.
51.648 OTHER CARBOHYDRATES.
51.6481 PROTEIN-BINDING SUGARS.

51.65 VITAMINS (CONTENT AND METABOLISM) AND VITAMIN-LIKE COMPOUNDS(PTERIDINES) IN TUMORS AND HOSTS.
51.651 GENERAL.
51.652 INCREASED VITAMIN B12 ACTIVITY IN SERUM OF PATIENTS WITH CHRONIC GRANULOCYTIC LEUKEMIA.
51.652 LIPID SOLUBLE.
51.658 FOLIC METABOLISM IN TUMORS.
INCREASED FOLATE IN PATIENTS WITH CANCER SERUM.

51.66 SELECTED METABOLIC PATHWAYS AND ENERGY METABOLISM IN TUMORS AND HOSTS.
51.660 GENERAL.
51.662 ENERGY METABOLISM AND ELECTRON TRANSPORT.
RELATED ENZYMES, COENZYMES, AND BIOCHEMISTRY.
51.6622 ELECTRON TRANSPORT AND OXIDATIVE PHOSPHORYLATION, AND RELATED ENZYMES.
51.663 ONE-CARBON METABOLISM (INCLUDING CARBON DIOXIDE FIXATION) IN TUMORS.
SEE ALSO: 51.32532 FOR EFFECT OF ANTIFOLICS ON ONE-CARBON METABOLISM.
51.66521 GENERAL.
51.6522 A AND CAROTENES.
51.6523 D.
51.6524 E.
51.6525 K.
51.653 B VITAMINS.
51.654 OTHER.
51.658 FOLIC METABOLISM IN TUMORS; INCREASED FOLATE IN PATIENTS WITH CANCER SERUM.
SEE ALSO: 51.663 FOR ONE-CARBON METABOLISM IN TUMORS.
51.661 THE KREBS CYCLE.
DICARBOXYLIC AND TRICARBOXYLIC ACIDS AND RELATED ENZYMES AND AEROBIC RESPIRATION IN GENERAL.
SEE ALSO: 51.6432 FOR COMPARISON OF AEROBIC AND ANAEROBIC PATHWAYS AND METABOLISM IN TUMORS.
SEE ALSO: 51.662 FOR ENERGY PRODUCTION IN TUMORS.
51.66221 GENERAL.
51.66222 DPN AND TPN LEVELS AND METABOLISM IN TUMOR TISSUES.
NAD AND NADP AND THEIR METABOLISM.
51.66223 FLAVIN NUCLEOTIDES.
51.66224 CYTOCHROMES OXIDATION LEVELS IN TUMORS AND TUMOR-BEARING HOSTS.
51.66225 ATP FORMATION AND REACTIONS INVOLVING ATP (ATPASE).
TRANSPHORYLATION AND LEVEL OF NUCLEOTIDE PHOSPHORYLATION (MYOKINASE).
51.6623 ENERGY SOURCES AND REQUIREMENTS OF TUMORS (GENERAL).
COMPARISON OF THE ENERGY DERIVED FROM GLYCOLYSIS AND FROM THE KREBS CYCLE.
SEE ALSO: 51.64 FOR GLYCOLYSIS, PASTEUR EFFECT AND CRABTREE EFFECTS.
SEE ALSO: 51.67582 FOR EFFECT OF OXYGEN TENSION ON TUMOR GROWTH.
51.66231 GENERAL.
51.66233 IN VITRO.
51.6624 REDOX REACTIONS (OXIDASES; DEHYDROGENASES).
SEE ALSO: 51.65 FOR VITAMINS INVOLVED IN ONE-CARBON TRANSFER (FOLIC, B 12).
SEE ALSO: 16.5 FOR ONE-CARBON TRANSFER IN GENERAL.

51.67 BIOCHEMISTRY OF MINERALS, ELEMENTS, AND TRACE METALS IN TUMORS AND HOSTS.
51.67001 MINERAL CONTENT AND METABOLISM IN TUMORS AND HOSTS IN GENERAL.
51.67002 TRACE MINERALS IN TUMORS AND TUMOR-BEARING HOSTS (PB, FE, AL, ZN, NI, CA).
51.67003 METHODS FOR DETERMINING TRACE METALS.
USE OF MAGNETIC SUSCEPTIBILITY AND ESR.
51.6716 CALCIUM BIOCHEMISTRY AND METABOLISM IN TUMORS AND HOSTS.
SEE ALSO: 51.7614 FOR HYPERCALCEMIA AND BONE DESTRUCTION IN TUMOR-BEARING HOSTS AND ITS RELATION TO A PARATHYROID-LIKE HORMONE.
SEE ALSO: 51.51522 FOR RELATION OF CALCIUM LEVELS TO COHESIVENESS OF TUMOR CELLS.
SEE ALSO: 19.116 FOR MORE GENERAL ASPECTS OF CALCIUM BIOCHEMISTRY.
51.67161 GENERAL.
51.6717 CADMIUM.
51.6752 SODIUM UPTAKE AND TRANSPORT AND METABOLISM IN TUMORS.
51.6758 OXYGEN BIOCHEMISTRY AND METABOLISM IN TUMORS, AND RELATED ENZYMES.
51.67201 CHLORINE.
51.6722 COBALT.
51.67301 IRON BIOCHEMISTRY AND METABOLISM IN TUMORS AND TUMOR BEARING HOSTS.
51.6743 K++ LEVELS AND METABOLISM IN CANCER PATIENTS AND TUMOR-BEARING HOSTS.
K+ DEPLETION IN CANCER PATIENTS.
51.6752 SODIUM UPTAKE AND TRANSPORT IN TUMORS.
BINDING OF SODIUM TO CANCER-SPECIFIC PHOSPHO-LIPIDS AND SODIUM BINDING FACTORS IN TUMORS.

SEE ALSO: 51.6387 FOR MALIGNOLIPIN AND 51.635 FOR PHOSPHO-LIPIDS.
51.675801 UPTAKE BY TUMORS.
51.67581 GENERAL.
51.67582 ROLE OF AEROBIC AND ANEROBIC ISCHEMIC CONDITIONS IN TUMOR GROWTH. OXYGEN TENSION IN AND AROUND TUMORS AND RESPIRATION OF TUMORS.
SEE ALSO: 51.623602 FOR TOXOHORMONE (PRODUCTION INHIBITS CATALASE).
SEE ALSO: 51.606 FOR ACID-BASE BALANCE IN TUMORS.
SEE ALSO: 51.643 FOR TUMOR GLYCOLYSIS.
SEE ALSO: 51.661 FOR KREBS CYCLE.
SEE ALSO: 51.662 FOR ENERGY PRODUCTION BY TUMORS.
51.67583 CATALASE AND PEROXIDASE AND DEHYDROGENASE OF TUMORS (MYELOPEROXIDASE OF LEUKEMIC LEUKOCYTES).
51.675831 GENERAL.
51.675832 CATALASE.
51.675833 PEROXIDASES, INCLUDING MYELOPEROXIDASE OF LEUKEMIC LEUKOCYTE.
51.675834 OTHER DEHYDROGENASES (AROMATIC DEHYDROGENASES; PHENYL ALANINE DEHYDROGENASE).
51.6760 PHOSPHATE BIOCHEMISTRY AND METABOLISM IN TUMORS, AND RELATED ENZYMES.
SEE ALSO: 19.160 FOR PHOSPHATE METABOLISM IN GENERAL.
SEE ALSO: 44.161 FOR INTERRELATION OF CALCIUM, PHOSPHATE, PARATHYROID AND BONE.
51.67601 GENERAL.
51.67602 ACID AND ALKALINE PHOSPHATASES AND OTHER PHOSPHATASES.
51.676021 GENERAL.
51.6760211 CYTOCHEMICAL STUDIES ON PHOSPHATASE AND PHOSPHATASE DISTRIBUTION.
51.676022 ACID PHOSPHATASE IN TUMORS AND HOSTS.
51.676023 ALKALINE PHOSPHATASE IN TUMORS AND HOSTS.
51.67603 BIOCHEMISTRY OF HIGH-ENERGY PHOSPHATE IN TUMORS AND HOSTS. ATP -ASE AND REACTIONS INVOLVING ATP .
SEE ALSO: 51.614 FOR NUCLEOTIDE METABOLISM AND NUCLEOTIDE KINASES, AND TRANSPHOSPHORYLATION.
51.676031 GENERAL.
51.6760 IN HUMANS.
51.67604 OPEN.
51.67605 OTHER ASPECTS OF PHOSPHATE METABOLISM IN TUMOR TISSUE AND TUMOR-BEARING HOSTS; UPTAKE, TURNOVER, ETC.
SEE ALSO: 44.161 FOR PARATHYROID, CALCIUM, PHOSPHATE, THIOCRATCITONEN, AND BONE AND CITRATE AND VITAMIN D.
SEE ALSO: 51.7614 FOR PARATHYROID-LIKE HORMONES OF NON-PARATHYROID TUMORS.
SEE ALSO: 51.764 FOR PARATHYROID TUMORS.
SEE ALSO: 51.75842 FOR EFFECT OF TUMORS ON BONE.
SEE ALSO: 51.6716 FOR CANCER METABOLISM.
51.676058 IN RELATION TO BONE METABOLSIM.
51.6775 SULFATE METABOLISM IN TUMORS.
51.6797 ZINC; INCREASED ZINC EXCRETION IN CANCER PATIENTS.

51.69 OTHER BIOCHEMISTRY RELATED TO TUMORS AND TUMOR-BEARING HOSTS; SUBSTANCES (EVEN IF NOT YET CHARACTERIZED).
SEE ALSO: 51.638 FOR MALIGNOLIPIN (POSSIBLY A MIXTURE OF PICRATES).
SEE ALSO: 51.606 FOR TUMOR PH.
51.6901 THE "E" SUBSTANCE.
51.6902 EFFECT OF TUMORS ON THE METABOLISM OF DRUGS.
SEE ALSO: 51.756 FOR PROLONGED SEDATION IN TUMOR-BEARING RATS, DRUG-INDUCED.
51.6903 PIGMENTS IN TUMORS.
51.690301 LIPOFUCHSIN IN TUMORS.
51.6904 PHENOLIC ACID METABOLISM IN RELATION TO CANCER.
51.6905 UNCONJUGATED PTERIDINES AND CRITHIDIA FACTOR ACTIVITY IN CANCER PATIENTS.
SEE ALSO: 19.33 FOR MOST INFORMATION ABOUT THESE COMPOUNDS.
51.6906 PORPHYRINS AND PORPHYRIN METABOLISM IN TUMORS AND HOSTS.
SEE ALSO: 51.21742 FOR USE OF PORPHYRINS TO VISUALIZE TUMORS.
51.69061 GENERAL.
51.69062 HEMAGLOBIN.
51.690621 GENERAL.
51.690622 LEVELS AND DISTRIBUTION.
51.690623 CHEMICAL AND PHYSICAL TYPES OF HEMAGLOBIN.
51.690624 PROPERTIES.
51.690625 CHEMISTRY.
51.690626 BIOSYNTHESIS.

51.690627 TURNOLVER AND DEGRADATION.
51.690628 OTHER SPECIFIC TOPICS; METHYL HEMAGLOBIN.
51.69063 NATURALLY OCCURRING PORPHYRINS OTHER THAN HEMAGLOBIN.
51.69064 DISTRIBUTION AND METABOLISM OF INJECTED PORPHYRINS.

51.7 HOST-TUMOR INTERACTIONS.
SEE ALSO: 51.2031 FOR CAUSE OF DEATH OF CANCER PATIENTS (GENERAL CACHEXIA, WASTING AWAY, AND INANATION).
SEE ALSO: 51.5115 FOR INTERACTION OF TUMOR CELLS WITH HOST CELLS IN VITRO.

51.71 GENERAL.
SEE ALSO: 51.733 FOR INHERITED SUSCEPTIBILITY TO CANCER.
SEE ALSO: 51.5114 FOR CELL CLONES WITH TUMORS.
SEE ALSO: 51.512 FOR TUMOR CHROMOSOMES AND CYTOGENETICS.
51.711 REVIEWS OF HOST-TUMOR INTERACTIONS.
51.712 TUMOR GENETICS.
51.713 HOST MECHANISMS FOR SUPPRESSING TUMORS IN GENERAL; "SURVEILLANCE MECHANISMS AGAINST CANCER".

51.72 METHODS.
SEE ALSO: 51.742 FOR GRAFTING AND TRANSPLANTATION OF TUMORS.
SEE ALSO: 51.742 FOR USE OF MILLIPORE CHAMBERS AND DIFFERENT TRANSPLANTATION SITES TO STUDY HOST-TUMOR INTERACTIONS.
51.721 GENERAL.

51.73 PROPERTIES OF MALIGNANT TUMORS AND TUMOR CELLS.
THEIR INTERACTION WITH HOSTS.
51.731 GENERAL.
51.7311 GENERAL.
51.7311 CRITERIA FOR MALIGNANCY (GENERAL) AND METHODS FOR DETERMINING IT; CYTOLOGY AND HISTOLOGY.
51.7312 INTERACTION OF MALIGNANT TUMORS WITH HOST IN GENERAL.
SEE ALSO: 51.734 FOR INVASIVENESS.
51.7321 GENERAL.
51.7322 RELATION OF SURVIVAL TIME TO NUMBER OF CELLS INJECTED AND FACTORS WHICH AFFECT SURVIVAL TIME AND DETERMINE GROWTH RATE.
METHODS OF MEASURING TUMOR GROWTH POTENTIAL AND PROLIFERATION RATE.
RELATION OF SURVIVAL TIME TO TUMOR GROWTH POTENTIAL.
TUMOR GROWTH CURVES.
DOUBLING TIME OF TUMORS AND CELL LOSS FROM TUMORS.
INDICATION OF TUMOR GROWTH RATE.
EFFECT OF HOST SEX ON GROWTH RATE.
METHODS OF MEASURING TUMOR DOUBLING OR OTHER TIMES.
51.7323 TUMOR CELL DIVISION TIME IN VIVO.
CELL PROLIFERATION KINETICS.
RADIOAUTOGRAPHY OF CANCER CELLS (THYMIDINE UPTAKE).
RHYTHMS IN TUMOR CELL GROWTH RATE.
RATE OF CELL DIVISION METHODS OF SYNCHRONIZING CELL DIVISIONAND TURNOVER OF TUMOR CELLS AND CELL KINETICS IN GENERAL.
SEE ALSO: 51.6101 FOR THYMIDINE UPTAKE STUDIES BY AUTORADIOGRAPHY.
SEE ALSO: 43.3 FOR CELL DIVISION TIME IN GENERAL.
51.7324 CHANGES IN SIZE AND MORPHOLOGY.
51.7325 HEPATECTOMIZED RAT SERA.
NARCOTICS.
CHONDROITEN SULFATE.
HEPATERTONIZED RAT SERA.
NEONATAL THYMUS INJECTIONS.
SEE ALSO: 51.424 FOR COCARCINOGENS.
CHANGES IN TYPE OF CELL DURING GROWTH.
51.733 METASTASIS.
SEE ALSO: 51.5162 FOR TUMOR CELL MEMBRANES AND THEIR PROPERTIES AND CELL ADHESIVENESS.
51.7331 GENERAL.
51.73311 IDENTIFICATION AND MEASUREMENT OF CANCER CELLS IN CIRCULATING BLOOD.
51.73312 METHODS FOR INDUCING METASTASES.
METHODS OF "CONDITIONING" THE HOST TO METASTASIS.
51.73313 CLINICAL STUDIES.
51.73314 EXPERIMENTAL STUDIES AND NON-CLINICAL STUDIES.
51.7332 RELEASE OF TUMOR CELLS INTO BLOOD AND LYMPH AND CIRCULATION OF TUMOR CELLS; FACTORS AFFECTING THIS.
RELATION OF COHESIVENESS (AND CALCIUM CONTENT) TO METASTASIS.
PRODUCTION OF TUMOR THROMBI OR "WHITE BODIES" OR "TUMOR PLUGS".

RELATION TO AND AND DEVELOPMENTAL STAGE OF THE TUMOR.
SEE ALSO: 51.5162 FOR COHESIVENESS OF TUMOR CELLS (GENERAL).
PENETRATION OF LYMPHATIC AND BLOOD VESSEL WALLS.

51.7333 DISTRIBUTION AND SURVIVAL OF METASTATIC CELLS AND FACTORS AFFECTING THIS AND HOST-METASTASIS INTERACTIONS AND ENDOGENOUS FACTORS AFFECTING SURVIVAL OF METASTASIS CELLS.
SEE ALSO: 51.21415 FOR METHODS USED TO DIAGNOSE CANCER BY STUDYING CIRCULATING CELLS.

51.73331 GENERAL.
51.73332 FATE OF INJECTED TUMOR CELLS; STUDIES ON "DORMANT" TUMOR CELLS; AGGLUTINATION OF INJECTED TUMOR CELLS; USE OF TUMOR CELLS LABELLED WITH RADIOACTIVE ISOTOPES (CR-51) OR WITH DYES (OR FLUORESCENT PORPHYRINS).
51.73333 FLOW OF MALIGNANT CELLS THROUGH THE VENOUS AND LYMPHATIC SYSTEM AND TUMOR EMBOLI IN LYMPHATIC SYSTEM.
ROLE OF LYMPHATIC SYSTEM IN METASTASIS AND RETENTION OF TUMOR CELLS BY LYMPH NODES.
51.73334 ROLE OF IMMUNITY IN SUPPRESSION OF METASTASES.

51.7334 OPEN.
51.733405 EFFECT OF PLASMINOGEN.
51.73335 MISCELLANEOUS; EFFECT OF TUMOR GROWTH RATE ON RATE OF METASTASIS; DISAPPEARANCE OF METASTASIS AFTER REMOVAL OF PRIMARY TUMOR.

51.7335 EFFECT OF VARIOUS EXOGENOUS AGENTS AND MANIPULATIONS ON METASTATIC CELLS.
51.733501 GENERAL.
51.733502 EFFECT OF HEPARIN AND OTHER ANTICOAGULANTS (WARFARIN, DICOUMAROL).
SEE ALSO: 51.32610302 FOR COAGULANTS.
SEE ALSO: 51.32610107 FOR ANTICOAGULANTS.
51.733503 EFFECT OF DEXTRAN.
51.733504 EFFECT OF FIBRINOLYSIN AND FIBRINOLYTIC AGENTS (UROKINASE).
51.733505 EFFECT OF PLASMINOGEN.
51.733506 EFFECT OF IODINE COMPOUNDS.
51.733507 EFFECT OF CORTISONE (STIMULATION OF METASTASIS BY CORTISONE).
51.733508 EFFECT OF VASOACTIVE AGENTS - VASOCONSTRICTORS AND VASODILATORS.
51.733509 EFFECT OF NEURAMINIDASE TREATMENT OF INJECTED CELLS.
51.733509 EFFECT OF ANTISERUM.
51.733511 EFFECT OF CHEMOTHERAPEUTIC AGENTS.
51.733511 EFFECT OF RADIATION.
51.733512 EFFECT OF MASSAGE.

51.7336 TYPES OF TUMORS FROM METASTASES.
51.73361 GENERAL.
51.73362 CIRCULATORY AND LYMPHATIC.
51.73363 MUSCLE.
51.73364 KIDNEY.
51.733651 EXOCRINE GLANDS.
51.733652 LUNGS.
51.733653 LIVER.
51.733654 GASTROINTESTINAL TRACT.
51.733655 REPRODUCTIVE.
51.73365524 BREAST.
51.733656 ENDOCRINE GLANDS.
51.7336562 HYPOPHYSIS AND ADRENALS.
51.7336563 THYROID.
51.7336564 PARATHYROID.
51.73366 NERVE.
51.73367 SENSORY.
51.73368 CONNECTIVE TISSUE.
51.733683 SKIN.
51.7336901 CARCINOMAS.
51.7336902 SARCOMAS.

51.7337 SITES OF METASTASES.
51.73371 GENERAL.
51.73372 CIRCULATORY.
51.733726 LYMPH NODES.
51.733726 MUSCLE.
51.73374 KIDNEY.
51.73375 ADRENAL GLANDS.
51.733753 LIVER.
51.733754 GASTROINTESTINAL TRACT.
51.733755 REPRODUCTIVE ORGANS.
51.7337551 GENERAL.

51.7337552 FEMALE; OVARIAN METASTASES.
51.7337553 MALE REPRODUCTIVE ORGANS.
51.733756 ENDOCRINE GLANDS.
51.7337561 GENERAL.
51.7337562 HYPOPHYSIS.
51.7337563 THYROID.
51.7337564 PARATHYROID.
51.73376 BRAIN AND NERVOUS TISSUE.
51.73377 SENSORY TISSUE.
51.733782 CONNECTIVE TISSUE.
51.733783 SKIN.
51.7338 EFFECT OF OTHER FACTORS.
51.7338 PROPERTIES AND HISTOLOGY.
51.733801 EFFECT OF MASSAGING THE TUMOR.
51.733802 EFFECT OF RADIATION.
51.733803 EFFECT OF TRAUMA.
51.7339 GROWTH OF METASTASES AND FACTORS AFFECTING GROWTH RATE.
51.7339 OTHER INFORMATION.
51.733901 POSSIBILITY OF ACELLULAR METASTASIS DUE TO TRANSFER OF GENES OR DNA FROM CANCER CELLS THROUGH THE BLOOD TO NEW SITES.

51.734 INVASIVENESS OF TUMORS; FACTORS AFFECTING IT AND RELATED ASPECTS.
ASSOCIATIONS BETWEEN ADJACENT NORMAL AND TUMOR CELLS (GENERAL) IN VIVO.
EFFECT OF TEMPERATURE ON THE ASSOCIATION.
MIGRATION AND PASSAGE BETWEEN TISSUES (PASSAGE ACROSS PLACENTA) AND INTO BLOOD SERUM.
BONY INVOLVEMENT; SKELETAL METASTASES.
FORMATION OF PSEUDOPODAL PROJECTIONS.
ENCROACHMENT AND BREACHING OF BASEMENT MEMBRANES.
SEE ALSO: 51.7662 FOR PENETRATION OF LYMPHATIC AND BLOOD VESSEL WALLS.
SEE ALSO: 51.5115 FOR IN VITRO INTERACTIONS.
51.7347 FINE STRUCTURE STUDIES AND HISTOLOGY AND CYTOCHEMISTRY.
51.7348 ROLE OF BLOOD SUPPLY, VASODILATION AND LYSIS; EVIDENCE FOR VASODILATION AND LYSIS.
51.7349 SPREADING FACTORS IN CANCER.
ROLE OF HYALINAMIDASE.

51.735 VASCULARIZATION OF TUMORS AND BLOOD FLOW IN TUMORS; EFFECT OF CANCER ON THE VASCULAR SYSTEM.
FACTORS STIMULATING BLOOD SUPPLY TO THE TUMORS.
BLOOD FLOW IN TUMORS AND TUMOR OXIDATION.
EFFECT OF LEUKOCYTES ON VASCULARIZATION.
VASODILATORY EFFECT.
USE OF GELATIN INJECTIONS TO STIMULATE TUMOR VASCULATURE.
FORMATION AND PROPERTIES OF BLOOD LACUNAE IN TUMORS.
SEE ALSO: 51.745 FOR OTHER INTERACTIONS OF RETICULOENDOTHELIAL AND LYMPHOID SYSTEMS (AND RELATED CELLS) WITH TUMORS.
SEE ALSO: 51.34372 FOR EFFECT OF RADIATION ON TUMOR VASCULARIZATION.
SEE ALSO: 51.7528 FOR EFFECT OF TUMORS ON BLOOD CLOTTING MECHANISMS.

51.736 OPEN.
51.737 OPEN.
51.738 OPEN.
51.739 OTHER HOST-TUMOR INTERACTIONS.
SEE ALSO: 51.759 FOR MISCELLANEOUS EFFECTS OF CANCER ON HOSTS AND FOR CYTOTOXICITY OF CANCER SERUM.
51.73901 NECROSIS OF TUMORS AND TUMOR NECROSIS.
ROLE OF ANOXIA IN TUMOR NECROSIS.
SEE ALSO: 52.1552 FOR NECROSIS IN GENERAL.
SEE ALSO: 51.20122 FOR CACHEXIA.
SEE ALSO: 51.75122 FOR CACHEXIA IN TUMORS.
51.73902 PHAGOCYTOSIS BY TUMOR CELLS.
SEE ALSO: 51.752523 FOR EFFECT OF TUMORS ON PHAGOCYTOSIS BY LEUKOCYTES.
SEE ALSO: 51.74501 FOR PHAGOCYTOSIS OF TUMOR CELLS.
51.73903 TEMPERATURE OF TUMORS.
51.73904 INFLAMMATION ASSOCIATED WITH TUMORS.
51.73905 EFFUSIONS INTO PLEURAL AND PERITONEAL CAVITIES.

51.74 TUMOR IMMUNOLOGY AND TUMOR TRANSPLANTATION.
EFFECT OF HOST INFLUENCE ON TUMOR TRANSPLANTS.
SEE ALSO: 48.4 FOR TRANSPLANTATION IMMUNOLOGY (GENERAL).
SEE ALSO: 51.27 FOR CLINICAL ASPECTS OF IMMUNOTHERAPY AND TRANSPLANTATION OF CANCER IN HUMANS.
SEE ALSO: 51.37 FOR PRE-CLINICAL ASPECTS OF IMMUNOTHERAPY.
SEE ALSO: 51.4512 FOR MOST IMMUNOLOGIC ASPECTS OF ONCOGENIC VIRUSES.

SEE ALSO: 51.5725 FOR CELL GROWTH ASPECTS OF THE IMMUNE RESPONSE TO TUMORS.
SEE ALSO: 51.62332 FOR IMMUNOGLOBULIN SYNTHESIS AND BIOCHEMISTRY IN TUMOR BEARING HOSTS.
SEE ALSO: 51.7701 FOR NON-IMMUNOLOGIC DEFENSE MECHANISMS AGAINST TUMORS.

51.741 GENERAL.
51.7411 IMMUNITY TO TUMORS IN SPECIFIC ANIMALS.
51.74112 TUMOR IMMUNITY IN MAN IN GENERAL.
SEE ALSO: 51.27 FOR CLINICAL TUMOR IMMUNOTHERAPY.
SEE ALSO: 51.74414 FOR ANTITUMOR ANTIBODIES IN HUMANS.
SEE ALSO: 51.74319 FOR TUMOR ANTIGENS IN HUMANS.
51.7412 INDIRECT EVIDENCE FOR ROLE OF IMMUNE RESPONSE IN TUMOR REGRESSION.
INHIBITION OF TUMOR GROWTH BY STEROIDS.
EFFECT OF IMMUNE SUPPRESSION PRODUCED ON TUMOR INDUCTION IN ANIMALS.
SEE ALSO: 51.74312 FOR SPECIFIC EVIDENCE OF TUMORS AS ANTIGENS.
51.74122 INDIRECT EVIDENCE FROM ANTIBODIES INHIBITING TUMOR GROWTH.
51.74123 EVIDENCE OF ANTIBODY FORMATION FROM TUMOR CELL INJECTION AND IMMUNE CELLS.
51.7413 ROLE OF THE THYMUS IN IMMUNE RESPONSE TO TUMORS.
SEE ALSO: 51.412523 FOR ROLE IN LYMPHOMAGENESIS.

51.742 TUMOR TRANSPLANTATION (GENERAL ASPECTS).
SEE ALSO: 51.744 FOR ANTIBODIES AGAINST TUMORS AND THEIR ROLE IN TUMOR REJECTION.
SEE ALSO: 51.743 FOR TUMOR ANTIGENS AND HISTOCOMPATIBILITY STUDIES.
SEE ALSO: 51.733 FOR INTERACTION OF METASTASES WITH HOSTS.
SEE ALSO: 51.745 FOR INTERACTION OF TUMORS WITH RETICULOENDOTHELIAL CELLS AND TISSUES.
SEE ALSO: 51.5 FOR TRANSPLANTATION AND EXPERIMENTS WITH SPECIFIC TYPES OF TUMORS.
SEE ALSO: 51.45126 FOR ROLE OF THYMUS IN DEVELOPMENT OF TRANSPLANT RESISTANCE.
SEE ALSO: 51.5112 FOR CHANGES IN MALIGNANT AND TRANSPLANTABILITY DURIG GROWTH IN CELLS IN TISSUE CULTURE.
SEE ALSO: 47.82 FOR TRANSPLANTATION IMMUNITY IN GENERAL.
51.74206 RABBIT EAR CHAMBER.
51.7421 GENERAL.
51.74211 HOST RESISTANCE TO TUMORS (GENERAL).
51.74212 VIABILITY OF TRANSPLANTED TUMOR CELLS.
51.7422 SPECIAL LOCATIONS AND METHODS USED FOR TUMOR TRANSPLANTATION (INCLUDING USED OF MILLIPORE CHAMBERS) AND METHODS USED FORDIRECT OBSERVATION OF GROWTH.
SEE ALSO: 51.723 FOR USE IN DIRECT OBSERVATION OF TUMORS.
SEE ALSO: 51.742407 FOR TRANSPLANTATION IN ANIMALS WITH SUPPRESSED IMMUNITY BY RADIATION, CHEMICALS, ETC.
51.742201 GENERAL.
51.7422011 OPEN.
51.7422012 SUPPRESSION OF IMMUNE RESPONSE DURING TUMOR TRANSPLANTATION.
51.7422013 USE OF PHOTOGRAPHIC AND CINEMATOGRAPHIC METHODS TO RECORD TUMOR GROWTH.
51.742202 TRANSPLANTATION OF TUMORS ONTO MAMMARY GLAND FAT PADS.
SEE ALSO: 48.13 FOR SURGICAL TECHNIQUES USED.
51.742203 TRANSPLANTATION OF TUMORS ONTO REGENERATING TISSUES.
CONVERSION OF CANCER CELLS TO NORMAL CELLS WHEN VIRUS-INDUCED FROG TUMOR IS GRAFTED INTO TADPOLE TAILS.
51.742204 TRANSPLANTATION INTO HAMSTER CHEEK POUCHES.
SEE ALSO: 51.742208 FOR SAUNDERS CHEEK POUCH CHAMBER.
SEE ALSO: 51.723 FOR USE OF THESE FOR DIRECT OBSERVATION OF THE HOST-
51.742205 TRANSPLANTATION OF CELLS AFTER PASSAGE THROUGH TISSUE CULTURE.
USE OF X-RAYS AND CORTISONE.
51.742206 RABBIT EAR CHAMBER.
51.742207 GROWTH OF TUMORS IN ISOLATED PERFUSED ORGANS AND THEIR USE FOR DIRECT OBSERVATION (INTO ISOLATED INTESTINAL SEGMENTS AND INTO THE THYROID.
51.742209 TRANSPLANTATION OF TUMORS FROM IN VITRO CULTURE (SAUNDERS CHEEK-POUCH CHAMBER).
51.7422101 TRANSPLANTATION INTO INTRACEREBRAL CAVITIES OF EXPERIMENTAL ANIMALS.
51.742211 TRANSPLANTATION INTO AIR POUCHES ON THE BACK OF RATS CONDITIONED WITH CORTISONE.
51.742212 TRANSPLANTATION INTO HAMSTERS (GENERAL).

51.742213 COMPARISON OF GROWTH OF TRANSPLANTS IN DIFFERENT ORGAN SITES.
51.7423 TRANSPLANTATION OF SPECIFIC TYPES OF TUMORS.
51.742311 TRANSPLANTATION OF HUMAN TUMORS IN MAN AND OTHER ANIMALS; ACCIDENTAL TRANSPLANTATION OF TUMORS WITH KIDNEY TRANSPLANTS FROM CANCER PATIENTS.
51.742325 LEUKEMIA AND LYMPHOMA.
51.7423251 GENERAL.
51.7423252 LEUKEMIA; TRANSPLANTABLE LEUKEMIAS.
51.7423253 LYMPHOMA.
51.7423253 LIVER.
51.7423254 GASTROINTESTINAL TUMORS.
51.7423254 STOMACH.
KUPPFER CELL TUMORS.
51.7423255 HEMAPOIETIC CELL LINE TUMORS.
51.74232552 OVARIES.
51.7423265 BRAIN.
51.7423286 SARCOMAS (GENERAL).
51.74235522 OVARIES.
51.74235523 ENDOMETRIUM.
51.742355234 CHORIOCA.
51.74235524 BREAST.
51.7423563 THRYROID.
51.742383 SKIN.
51.7423901 ASCITES CELLS.
51.7423902 RAT TUMORS TRANSPLANTED INTO MICE AND REVERSE.
GENSER AND WALKER 256.
51.7423903 HETEROTRANSPLANTATION OF HUMAN TUMORS IN GENERAL.
51.7424 EFFECT OF ENDOGENOUS HOST IMMUNE STATUS AND RELATED FACTORS ON THE "TAKE" OR REJECTION OF TUMOR TRANSPLANTS.
51.742401 GENERAL.
51.742402 THE F1 HYBRID EFFECT IN TUMOR TRANSPLANTATION (BARRETT AND DERINGER).
EFFECT OF PASSING A TUMOR THROUGH NEONATAL THYMECTOMIZED F1 HYBRID ON SUBSEQUENT GROWTH IN F2 HYBRIDS).
51.742403 EFFECT OF MULTIPARITY.
RESISTANCE OF FEMALES AGAINST GRAFTS FROM MALES THEY HAVE PREVIOUSLY MATED WITH.
51.742404 OPEN.
51.742404 AGGLUTINATION OF INJECTED TUMOR CELLS.
51.742405 DELAY IN THE GROWTH OF TRANSPLANTED TUMORS; FACTORS RESPONSIBLE.
51.742406 EFFECT OF PARTIAL TUMOR REMAINING IN HOST ON TRANSPLANTATION OF THE TUMOR BACK INTO THE HOST.
51.7424081 EFFECT OF THYMUS ON TUMOR TRANSPLANTATION.
51.74241 MECHANISM OF TUMOR REJECTION (GNERAL).
ROLE OF HUMORAL ANTIBODIES.
ROLE OF IMMUNE CELLS.
SEE ALSO: 51.743 THROUGH 51.745 FOR SPECIFIC IMMUNOLOGICAL FACTORS AFFECTING TUMOR GROWTH.
SEE ALSO: 51.733 FOR INTERACTION OF METASTATIC CELLS (AND CELLS INJECTED INTO THE BLOOD STREAM) WITH HOSTS.
SEE ALSO: 51.51622 FOR STICKINESS OF CANCER CELLS.
51.742406 COMPARATIVE GROWTH RATE OF SINGLE TUMORS AND MULTIPLE TUMORS.
EFFECTS OF PREVIOUS TUMOR GROWTH (EITHER STILL PRESENT OR REMOVED OR CURED) ON TAKE OF SUBSEQUENT TRANSPLANTS.
EFFECT OF PREEXISTING TUMORS OR PREVIOUS TUMOR GROWTH ON TAKE OF INJECTED CANCER CELLS.
51.742407 CYTOLOGY OF TYPED TUMORS AND CHROMOSOME CHANGES IN TRANSPLANTS AND HOST AFTER TRANSPLANTATION.
51.742408 TRANSPLANTATION INTO HOST AFTER IMMUNE SUPPRESSIVE PROCEDURE
51.742408 EFFECT OF EXOGENOUS FORCES AND CHEMICAL AGENTS ON THE TAKE.
EFFECT OF X-RAYS, CORTISONE ON HOST IMMUNITY.
51.7424081 GENERAL.
51.7424082 THYMUS.
51.7424083 XRAYS.
51.7424083 EFFECT OF IMMUNOSUPPRESSIVE CHEMICALS ON TUMOR TRANSPLANTATION.
51.7424084 CORTISONE.
51.7424084 ATTEMPTS TO INDUCE TOLERANCE TO TUMORS BY INJECTING ANTIGENS INTO TISSUES.
51.7424085 EFFECT OF DYES (JONES GREEN B) AND OTHER CHEMICALS (IODOACETATE, NARCOTICS).
51.7424085 SUPPRESSION OF HOST IMMUNE RESPONSE BY INJECTION OF SPLEEN CELLS.

51.7424086 EFFECT OF IMMUNOSUPPRESSIVE CHEMICALS (MTX).
51.7424086 ANTILYMPHOCYTE OR ANTITHYMIC SERA.
51.742409 EFFECT OF HOST AND DONOR SEX ON TRANSPLANT GROWTH.
51.742411 EFFECT OF GVH REACTION AND SPLEEN CELL INJECTIONS ON TUMOR TAKES.
51.7425 ALTERATION OF THE REJECTION RATE BY MODIFICATION OF THE GRAFT OR TUMOR CELLS BEFORE TRANSPLANTATION.
SEE ALSO: 51.37 FOR MODIFICATION OF TUMOR CELLS BEFORE USE AS ANTI-TUOR ANTIGENS.
51.74251 GENERAL.
51.74252 INCUBATION OF THE TISSUE WITH VIRUSES BEFORE TRANSPLANTATION. REDUCTION OF TUMOR PRODUCTION WHEN ASCITES TUMOR CELLS ARE INCUBATED WITH INFLUENZA VIRUS.
51.74253 CHANGES IN TUMOR CELLS AND TUMOR CELL SURFACES DURING REJECTION.
51.74254 REDUCED "TAKE" OF TUMOR CELLS INCUBATED WITH LYMPHOCYTES OR PHAGOCYTES BEFORE INJECTION OR INJECTED SIMULTANEOUSLY.
51.74255 REDUCED TAKE WHEN TUMOR CELLS ARE INCUBATED WITH C' AND PROPERDIN BEFORE INJECTION.
51.7427 CYTOLOGICAL STUDIES ON THE MECHANISM OF TUMOR REDUCTION AND OF TUMOR CELL INTERACTION WITH HOST IN GENERAL.
PROLIFERATION AND INFILTRATION OF HOST CELLS IN RESPONSE TO GRAFTS AND TRANSPLANTS.
PHAGOCYTOSIS OF INJECTED CELLS.
NECROSIS AND DEGENERATIVE PROCESSES.
CHANGES IN NEARBY LYMPHATIC TISSUE.
CHANGES IN TUMOR CELL SURFACES JUST BEFORE REJECTION.
51.7428 OTHER CHANGES IN TRANSPLANTED TUMOR CELLS.
51.742801 CHROMOSOME CHANGES IN TRANSPLANTED TUMOR CELLS.
51.742802 GROWTH AND METASTASIS OF TRANSPLANTED TUMORS (GENERAL).
51.743 TUMOR ANTIGENS AND HAPTENS; IMMUNOLOGY OF TUMOR-SPECIFIC PROTEINS.
SEE ALSO: 47.85 FOR ANIMAL ANTIGENS IN GENERAL.
SEE ALSO: 51.4512 FOR ANTIGENS OF VIRUS-INDUCED TUMORS.
SEE ALSO: 47.8 FOR ANTIGENS IN GENERAL.
SEE ALSO: 47.87 FOR ANTIGENICITY OF PURIFIED BIOCHEMICAL ENTITIES OR FRACTIONS AND FOR ANTIGENICITY OF CELL FRACTIONS.
SEE ALSO: 51.74634 FOR LOSS OF ANTIGENS OR ABSENCE OF ANTIGENS FROM CANCER TISSUES.
SEE ALSO: 48.423 FOR TRANSPLANTATION ANTIGENS.
SEE ALSO: 51.51621 FOR ISOLATION OF TUMOR CELL MEMBRANES.
SEE ALSO: 48.42 FOR TRANSPLANTATION ITEMS IN GENERAL.
SEE ALSO: 51.525524 FOR THE TL ANTIGEN.
SEE ALSO: 51.7442 FOR ANTIGENICITY OF TUMOR ANTIGENS.
51.7431 GENERAL.
51.74311 OPEN.
51.7432 IDENTIFICATION, ISOLATION, AND PROPERTIES OF TUMOR ANTIGENS.
THE H-2 AND NON-H2 ANTIGENS OF TUMORS.
51.74321 GENERAL; OCCURRENCE, AMOUNT AND INTRACELLULAR LOCATION OF TUMOR ANTIGENS.
51.743221 GENERAL.
51.743222 METHODS USED FOR IDENTIFICATION.
51.743223 METHODS USED FOR ISOLATION.
51.74323 PHYSICAL AND CHEMICAL PROPERTIES.
51.7433 TUMOR HISTOCOMPATIBILITY GENES AND RELATED ANTIGENS.
H-2 LOCUS OF TUMORS.
IMMUNORESISTANT SUBLINES OF TUMORS.
SEE ALSO: 48.423 FOR TRANSPLANTATION ANTIGENS.
SEE ALSO: 51.745 FOR IMMUNE CELLS FORMED FROM H2 ANTIGENS.
H-2 ANTIGENS AND ISOANTIGENS AND SURFACE ANTIGENS OF TUMORS.
TRANSPLANTATION SPECIFICITY OF TUMOR TISSUES AND CHANGES IN THIS SPECIFICITY DURING GROWTH IN TISSUES CULTURE.
SEE ALSO: 51.744 FOR ANTIBODIES AGAINST TUMORS AND THEIR EFFECT ON TUMORS.
SEE ALSO: 51.5162 FOR TUMOR CELL MEMBRANES (NON-IMMUNOLOGICAL PROPERTIES).
SEE ALSO: 51.7434 FOR SPECIFIC TYPES OF ANTIGENS.
51.7434 SPECIFIC TYPES OF TUMOR-RELATED ANTIGENS AND SPECIFIC EXAMPLES.
SEE ALSO: 51.45122 . FOR ANTIGENS OF VIRUS-INFECTED CELLS.
51.743401 IMMUNOLOGY OF MYELOMA AND BENCE-JONES PROTEINS.
51.743401 SPONTANEOUS MAMMARY TUMOR ANTIGENS (SMT) IN MICE.
SEE ALSO: 51.2332 FOR BIOSYNTHESIS OF THESE PROTINS.
51.743402 IMMUNOLOGY OF CULTURED HUMAN TUMOR CELLS (HELA CELL ANTIGEN).
HUMAN LEUKEMIA CELL LINES.
51.743403 AKR THYMUS ANTIGEN IN LEUKEMIC MICE.
OTHER ANTIGENS IN LEUKEMIA AND LEUKEMIC CELLS IN ANIMALS.

51.743404 IMMUNOLOGY OF TUMOR GLYCOPROTEINS.
51.743405 IMMUNOLOGY OF TUMOR GLYCOLIPIDS AND TUMOR LIPIDS (CYTOLIPINS G AND H; LIPID HAPTENS).
ORGAN SPECIFIC HAPTEN OF BRAIN.
GALACOTOXERIBOSIDE, CARDIOLIPIN, FROM HUMAN GASTROINTESTINAL TRACT AND BREAST CANCER.
ACYL EPHIMYOSYL GLUCOSIDOGALACTOSIDE (CERAMIDE LACTOSIDE).
CYTOLIPIN K FROM KIDNEY AND KIDNEY TUMORS.
CYTOLIPIN R FROM MURPHY RAT LYMPHOSARCOMA.
51.743406 OPEN.
51.743407 ANTIGENS OF TUMOR CELLS AND CELL PARTS.
IMMUNITY OF TUMOR CELL MEMBRANES AND RELATED STRUCTURES AND SUBCELLULAR COMPONENTS OF TUMORS.
IMMUNITY OF SUBCELLULAR COMPONENTS OF TUMORS.
SEE ALSO: 47.8533 FOR ANTIGENS OF SPECIFIC CELL FRACTIONS.
SEE ALSO: 47.8535 FOR ANTIGENICITY OF CHEMICAL COMPONENTS OF CELLS.
SEE ALSO: 51.5162 FOR GENERAL ASPECTS OF TUMOR CELL MEMBRANES AND THEIR ISOLATION.
51.7434071 GENERAL; ROLE OF LIPID MEMBRANES IN ANTIGENICITY OF SUB-CELLULAR COMPONENTS.
51.7434072 IMMUNITY OF CELL SURFACE MEMBRANES AND STROMA.
51.7434073 IMMUNITY OF MICROSOMES AND ENDOPLASMIC RETICULUM.
51.7434074 IMMUNITY OF LYSOSOMES.
51.7434075 NUCLEIC ANTIGENS.
51.743408 "X TYPE" ANTIGENS OF GORER.
51.743411 ANTIGENICITY OF CHEMICALLY INDUCED TUMORS.
51.7434111 GENERAL.
51.7434112 AZO DYES.
51.7434113 AROMATIC HYDROCARBONS.
51.7434114 OTHER AGENTS.
51.743412 LIPO-PROTEINS FROM TUMORS.
51.743413 ANTIGENICITY OF TRANSFORMED TISSUE CULTURE CELLS AND CROSS REACTION BETWEEN THEM.
51.7435 MODIFICATION OF TUMOR ANTIGENS AND THEIR ANTIGENICITY.
USE OF VASODILATORS (PETN) WITH INJECTED ANTIGENS.
EFFECT OF HCHO, IRRADIATION, USE OF ADJUVANT, IAC TREATED CELLS.
EFFECT OF INJECTING FREUNDS ADJUVANT WITH TUMOR CELLS.
EFFECT OF INJECTING FREUNDS ADJUVANT WITH TUMORS CELLS.
SEE ALSO: 51.34443 FOR EFFECT OF RADIATION ON ANTIGENICITY OF TUMOR CELLS.
SEE ALSO: 51.74421 FOR USE OF TUMOR CELLS AND ANTIGENS FROM THEM TO IMMUNIZE ANIMALS AGAINST CANCER AND TO STIMULATE ANTIBODY PRODUCTION.
FACTORS WHICH INCREASE OR DECREASE ANTIGENICITY.
SEE ALSO: 51.34443 FOR EFFECT OF RADIATION ON ANTIGENICITY OF TUMOR CELLS.
51.7436 ANTIGENS IN TUMORS OF SPECIFIC TISSUES.
51.74362 CIRCULATORY SYSTEM.
51.743625 LEUKEMIA AND LYMPHOMA.
51.74363 MUSCLE.
51.74364 KIDNEY.
51.743652 LUNGS.
51.743653 LIVER.
51.743654 GASTROINTESTINAL-SPECIFIC COLON CANCER ANTIGENS.
51.74365522 OVARIAN TUMOR ANTIGENS.
51.74365523 ANTIBODIES IN ENDOMETRIAL CANCER AND CHORIOCARCINOMA.
51.74365524 BREAST TUMORS.
51.74366 NERVES.
51.74367 SENSORY ORGANS.
51.74368 CONNECTIVE TISSUE.
51.7436901 ASCITES.
51.7436902 THE ANTIGENICITY OF METASTASES.
51.7437 EFFECT OF INJECTING TUMOR ANTIGENS AND TUMOR CELLS AND MODIFIED CELLS; PRODUCTION OF DELAYED TYPE HYPERSENSITIVITY.
SEE ALSO: 51.74425 IF ANTIBODY PRODUCTION IS STUDIED.
SEE ALSO: 51.745 FOR CELLULAR RESPONSE TO TUMORS.
51.744 ANTIBODIES AND ANTISERA AGAINST TUMORS AND TUMOR ANTIGENS.
TUMOR-SPECIFIC ANTIBODIES.
BLOCKING ANTIBODIES.
SEE ALSO: 51.75901 FOR CYTOTOXICITY OF HUMAN CANCER SERUM (GENERAL).
SEE ALSO: 51.7412 FOR INDIRECT EVIDENCE FOR TUMOR ANTIBODIES AND EFFECT OF IMMUNOSUPPRESSIVE PROCEDURES.
SEE ALSO: 51.74611 FOR GENERAL LEVEL OF ANTIBODIES AND CLASSES OF ANTIBODIES IN PATIENTS WITH CANCER.

SEE ALSO: 51.3275 FOR EFFECT OF CRUDE SERA AND OTHER ANIMAL MATERIAL ON TUMOR GROWTH.
SEE ALSO: 51.27 FOR CLINICAL USE OF IMMUNOTHERAPY.
SEE ALSO: 51.37 FOR PRE-CLINICAL ASPECTS OF IMMUNOTHERAPY.
SEE ALSO: 51.4512 FOR ANTIBODIES AGAINST VIRUS-INDUCED TUMORS AND CELLS INFECTED WITH ONCOGENIC VIRUSES.
SEE ALSO: 51.743 FOR TUMOR ANTIGENS AND THEIR PROPERTIES.
SEE ALSO: 51.742200 FOR VERY GENERAL ASPECTS OF TUMOR REJECTION.

51.7441 GENERAL.
51.74411 IMMUNITY TO AUTOCHTHONOUS CANCER.
51.74413 OPEN.
51.74414 EVIDENCE FOR ANTITUMOR ANTIBODIES IN HUMANS.
SEE ALSO: 51.74112 FOR TUMOR IMMUNITY IN HUMANS.

51.7442 PRODUCTION OF ANTIBODIES AGAINST TUMORS; ANTIGENICITY OF TUMOR ANTIGENS. RELATED IN VIVO STUDIES.
SEE ALSO: 51.7435 FOR METHODS OF CHANGING ANTIGENICITY OF TUMOR CELLS.
SEE ALSO: 51.7435 FOR ANTIGENICITY OF TUMOR ANTIGENS.
51.74421 GENERAL.
51.74422 EFFECT OF INJECTING TUMOR ANTIGENS IN VIVO.
PERFUSION OF ANTIGENS THROUGH LYMPHOID TISSUE AND BONE MARROW.
INHIBITION OF SPONTANEOUS MAMMARY TUMORS BY THE METHANOL-INSOLUBLE RESIDUE (MER) OF TUBERCLE BACILLI.
ANTITUMOR ANTIBODIES IN HUMANS.
PRODUCTION OF IMMUNE TOLERANCE BY INJECTING TUMOR ANTIGENS INTO EMBRYONIC OR NEONATAL ANIMALS.
51.74423 MECHANISM OF IMMUNIZATION AGAINST TUMORS BY INJECTING TUMOR CELLS OR TISSUES IN VIVO PRODUCTION OF ANTITUMOR ANTIBODIES IN TUMOR BEARING HOSTS.
SITE OF FORMATION OF ANTITUMOR ANTIBODIES IN TUMOR-BEARING HOSTS.
EFFECT OF INJECTING ANTIBODIES TO IMMUNIZE AGAINST TUMORS.
SEE ALSO: 51.74611 FOR GENERAL LEVEL OF ANTIBODIES AND CLASSES OF ANTIBODIES IN TUMOR BEARING HOSTS.
51.74424 INCUBATION OF TUMOR ANTIGENS WITH IMMUNOLOGICALLY COMPETENT OR POTENTIALLY COMPETENT TISSUES IN VITRO.
51.74425 ANTIBODY PRODUCTION IN MICE BY INJECTION OF MALIGNANT CELLS AND MODIFIED CELLS (CELLS TREATED WITH ALDEHYDRES, HCHO, AEROLEIN, OR IAC).
SEE ALSO: 51.742406 FOR EFFECT OF PREVIOUS TUMOR GROWTH ON THE TAKE OF SUBSEQUENT TRANSPLANTS.
ANTIBODY PRODUCTION IN MICE BY INJECTION OF IRRADIATED CELLS.
51.74426 EFFECT OF INCUBATING TUMOR CELLS WITH IMMUNE SERUM OTHER THAN CELL VIABILITY.
51.74427 EFFECT OF VARIOUS EXOGENOUS AGENTS ON PRODUCTION OF ANTIBODIES AGAINST TUMORS.
51.744270601 FREUNDS ADJUVANT.

51.7443 ISOLATION AND PROPERTIES OF SPECIFIC ANTITUMOR ANTIBODIES.
SEE ALSO: 51.27 AND 51.37 FOR CLINICAL AND PRE-CLINICAL ASPECTS OF IMMUNOTHERAPY.
51.74431 GENERAL; ANTI-TUMOR SERUM IN GENERAL.
PASSIVE TRANSFER OF IMMUNITY TO TUMORS BY ANTI-TUMOR SERUM.
LOCALIZATION OF ANTI-TUMOR ANTIBODIES.
EFFECT OF ANTISERA ON PROPERTIES OF TARGET CELLS.
51.74432 CYTOTOXIC AND CYTOLXYIC ANTIBODIES (CYTOTOXINS) AND THEIR EFFECT ON TUMOR TISSUE.
MECHANISM OF CYTOTOXIC ACTION.
EFFECT ON THE BIOCHEMISTRY OF TARGET CELLS.
METHODS OF DETECTING CYTOTOXICITY (LEAKOYL TESTS).
51.74433 HEMOLYTIC ANTIBODIES (HEMOLYSINS) AND THEIR EFFECT ON TUMOR TISSUES.
51.744338 ANTIBODIES AND THEIR STRUCTURE ONLY.
51.74434 HEMAGGLUTINATING ANTIBODIES (HEMAGGLUTINS) AND THEIR EFFECT ON TUMORS.
51.74435 CELL AND VIRUS COATING ANTIBODIES.
GRAFT AND DONOR TISSUE.
51.74435 IMMUNOLOGICAL ENHANCEMENT OR "ACQUIRED TOLERANCE" TO TUMORS.
ROLE OF ANTIBODIES IN "ENHANCING" OR "STIMULATING" TUMOR GROWTH.
POSSIBLE "IMMUNE BLOCKAGE" OF ANTIGENIC SYSTEM OF A TUMOR HOMOGRAFT BY ANTISERUM AND RELATED EFFECTS OF ANTISERUM.
"ENHANCING ANTIBODIES" AND EXPERIMENTS WITH PASSIVELY-TRANSFERRED ANTI-TUMOR SERUM.
ROLE OF ANTI-DNA ANTIBODIES IN TUMOR ENHANCEMENT.
SEE ALSO: 51.74435 FOR NATURE OF ENHANCING ANTIBODIES.
SEE ALSO: 48.4233 FOR IMMUNOLOGIC ENHANCEMENT (GENERAL ASPECTS).
THE "TAKE" OR REJECTION OF TUMOR TRANSPLANTS RELATED TO THE

51.744351 GENERAL.
51.744352 RED BLOOD CELL COATING; HEMADSORPTION BY CANCER TISSUES.
51.744353 LEUKOCYTE COATING.
51.744354 OTHER MAMMALIAN CELL COATING.
51.744355 VIRUS COATING.
51.74436 ENHANCING ANTIBODIES WHICH ENHANCE TUMOR GROWTH.
51.7444 ACCESSORY TUMOR FACTORS IN TUMOR BEARING HOSTS.
51.74441 C' LEVELS IN TUMOR BEARING HOSTS.
EFFECT OF C' ON TUMORS AND ON TUMOR REJECTION AND RELATED CYTOCIDOL SYSTEMS INVOLVING C'.
SEE ALSO: 51.7456 FOR ROLE OD C' IN CELL BORNE IMMUNE RESPONSE TO TUMORS.
SEE ALSO: 48.42405 FOR GENERAL STUDIES ON ENHANCEMENT.
SEE ALSO: 51.745502 .
SEE ALSO: 51.742408 FOR TRANSPLANTATION AFTER TOLERANCE INDUCTION.
SEE ALSO: 51.7423 FOR INFORMATION ABOUT EFFECT OF THESE ANTIBODIES ONTUMOR GROWTH.
51.7445 ANTIBODIES IN SPECIFIC TYPES OF CANCER.
51.744525 ANTIBODIES IN LEUKEMIA AND LYMPHOMA.
51.744554 ANTIBODIES AGAINST GASTROINTESTINAL CANCER.
51.74456 ANTIBODIES AGAINST BRAIN TUMORS.
51.7446 PASSIVE IMMUNIZATION WITH ANTIBODIES AND WAYS TO INCREASE THEIR EFFECTIVENESS. INJECTION OF VASODILATORS AND PERMEABILITY INCREASING AGENTS (PETN) WITH THE ANTIBODIES.
METHODS OF MEASURING ANTIBODY PENETRATION.
PASSIVE TRANSFER OF IMMUNITY TO TUMORS BY ANTITUMOR SERUM.
51.7447 MECHANISM OF ANTIBODY ACTION.
ULTRASTRUCTURE OF TUMOR CELLS TREATED WITH ANTIBODIES.
51.745 EFFECT OF IMMUNE CELLS, TISSUES AND TISSUE COMPONENTS OF THE RETICULO-ENDOTHELIAL AND LYMPHATIC SYSTEMS ON TUMORS AND TUMOR CELLS; CELL TYPES INVOLVED IN GRAFT REJECTION.
SEE ALSO: 51.7525 FOR EFFECT OF TUMORS ON THE RETICULO-ENDOTHELIAL AND LYMPHATIC SYSTEMS.
SEE ALSO: 51.74254 FOR REDUCED TAKE OF TRANSPLANTED TUMOR CELLS AFTER INCUBATION WITH LYMPHOCYTES.
SEE ALSO: 51.37 FOR TUMOR IMMUNOTHERAPY.
SEE ALSO: 51.735 FOR VASCULARIZATION OF TUMORS.
51.7451 GENERAL.
51.74518 IN LEUKEMIA.
51.7452 ROLE OF THYMUS IN TUMOR REJECTION AND TUMOR GROWTH.
EFFECT OF THYMUS ON TUMOR GROWTH.
EFFECT OF SPLEEN CELLS, LIVER, BLOOD CELLS, PERITONEAL CELLS.
51.7453 PASSIVE CELLULAR TRANSFER OF ABILITY TO SUPPRESS TUMOR GROWT.
TRANSFER FROM SUPPRESSOR (REGRESSOR) TO A NON-SUPPRESSOR (NON-REGRESSOR).
TRANSFER OF IMMUNITY BY SUBCELLULAR COMPONENTS (NUCLEIC ACIDS, MICROSOME FRACTIONS).
TRANSFER OF IMMUNITY BY SUB CELL
SEE ALSO: 47.344 FOR PRODUCTION OF "IMMUNE CELLS" OR IMMUNE COMPETENTCELLS.
SEE ALSO: 47.3433 FOR IMMUNE RNA FROM THESE CELLS.
BY SPLEEN AND LYMPH NODE CELLS.
51.7454 EFFECT OF LYMPHOCYTES, LEUKOCYTES, AND RETICULO-ENDOTHELIAL CELLS INCLUDING ALL LEUKOCYTES ON TUMORS.
SEE ALSO: 51.7452 FOR EFFECT OF THYMUS ON TUMORS.
SEE ALSO: 51.752523 FOR EFFECT OF CANCER ON PROPERTIES OF RETICULO-ENDOTHELIAL CELLS.
51.745401 GENERAL.
PHAGOCYTOSIS OF TUMOR CELLS BY LEUCOCYTES AND ROLE OF LYMPHOID CELLS ON TUMOR REGRESSION.
SEE ALSO: 51.73902 FOR PHAGOCYTOSIS BY TUMOR CELLS.
SEE ALSO: 51.752523 FOR EFFECT OF CANCER ON PHAGOCYTES.
51.745402 EFFECT OF MACROPHAGES.
51.745403 EFFECT OF LYMPHOCYTES AND OTHER LYMPHOID CELLS.
SEE ALSO: 51.74254 FOR EFFECT OF INCUBATION WITH THESE CELLS BEFORE TRANSPLANTATION.
51.745404 EFFECT OF PLASMA CELLS.
51.745405 EFFECT OF PYRONINOPHILIC CELLS.
51.745406 EFFECT OF HISTIOCYTES.
51.745407 EFFECT OF SPLEEN CELLS FROM NORMAL AND IMMUNIZED (AGAINST TUMORS) MICE.

51.745408 EFFECT OF OTHER RETICULOENDOTHELIAL AND LYMPHOID CELLS.
51.7455 MISCELLANEOUS EFFECTS OF RETICULOENDOTHELIAL CELLS AND LYMPHATIC CELLS AND TISSUES ON TUMORS.
51.745501 HEMABSORPTION OF RED BLOOD CELLS TO SLICES (SECTIONS) OF HUMAN TUMORS.
SEE ALSO: 47.325 FOR OTHER ASPECTS OF CELL ADHERENCE.
51.745502 ENHANCEMENT OF TUMOR GROWTH BY RETICULOENDOTHELIAL CELLS.
SEE ALSO: 51.74435 FOR ENHANCING ANTIBODIES.
51.7456 ROLE OF C^1 AND C^3 LEVELS IN THE CELL-BOUND CELL-ASSOCIATED ABILITY TO INTERACT WITH TUMOR CELLS AND THE CYTOCIDAL SYSTEM INVOLVING C^3.
SEE ALSO: 51.74441 FOR C^3 LEVELS.
51.7457 MISCELLANEOUS INFORMATION RELATED TO CELL-BOUND IMMUNITY.
51.745701 INHIBITION BY ALLOGENEIC CELLS WITH FOREIGN H-2 ANTIGENS.
51.745702 INTERACTION (SYNERGISM OR INTERFERENCE) BETWEEN IMMUNE CELLS AND IMMUNE SERUM.
51.746 SELECTED EFFECTS OF TUMORS ON HOST IMMUNOLOGY.
SEE ALSO: 51.52534 FOR EFFECT OF HODGKINS DISEASE ON HOST IMMUNITY.
SEE ALSO: 51.745501 FOR HEMADSORPTION OF RED BLOOD CELLS TO TUMOR CELLS.
SEE ALSO: 51.7525 FOR EFFECT OF CANCER ON THE RETICULOENDOTHELIAL SYSTEM AND ON RE CELLS.
SEE ALSO: 51.62332 FOR BIOCHEMISTRY AND METABOLISM OF IMMUNOGLOBULINS IN CANCER PATIENTS.
SEE ALSO: 51.744 FOR ANTITUMOR ANTIBODIES.
SEE ALSO: 51.77 FOR NON-IMMUNE ASPECTS OF HOST DEFENSE AGAINST TUMORS.
51.7461 GENERAL.
51.7462 OPEN.
51.7463 EFFECT OF CANCER ON HOST ANTIGENS AND IMMUNE COMPETENCE IN GENERAL.
SEE ALSO: 51.473 FOR TUMOR ANTIGENS.
51.74631 GENERAL.
51.74632 BLOOD GROUPS
51.74632 BLOOD GROUP ANTIGENS IN TUMOR BEARING HOSTS.
ANTIGEN M ALTERATIONS.
INCREASED F8 M IN SERA OF PATIENTS WITH MACROGLOBULINEMIA.
INCREASED ANTI-M ANTIBODIES IN PATIENTS WITH CANCER.
RELATION OF SECRETION OF BLOOD GROUP SUBSTANCES TO CANCER METASTASES.
BLOOD GROUP SUBSTANCES OF CANCER CELLS.
CHANGES IN A, B, H AND LEWIS ANTIGENS IN TUMOR BEARING HOSTS.
I-ANTIGEN DEFICIENCY IN LEUKEMIA (POSSIBLY DUE TO PPLO INFECTION).
INCREASED INCIDENCE OF BLOOD GROUP A IN PATIENTS WITH CANCER (PARTICULARLY GASTROINTESTINAL CANCER).
CHANGE FROM A1 TO A2 DURING COURSE OF HUMAN LEUKEMIA.
SEE ALSO: 51.646 FOR OTHER BLOOD GROUP SUBSTANCES AND RELATED COMPOUNDS IN TUMORS.
51.74633 EFFECT OF TUMORS ON ANTIGEN CLEARANCE (INCLUDING CLEARANCE OF TUMOR ANTIGENS).
HAPTOGLOBIN TYPES IN CANCER PATIENTS.
EFFECT OF SERUM PROTEIN ANTIGENS.
51.74634 LOSS OF ANTIGENS OR ABSENCES OF ANTIGENS IN CANCER TISSUES.
51.74635 LEUKOCYTE AND OTHER ANTIGENS DECREASED ABILITY OF ANTITHYROID AUTOANTIBODIES (FORMED IN CHRONIC THYROIDITIS) TO REACT WITH CANCEROUS THYROID TISSUE.
51.74637 PLATELET ANTIGENS.
51.7464 EFFECT OF CANCER ON IMMUNE RESPONSE ANTIBODIES SYNTHESIZED BY THE HOST AND EFFECT ON ANTIBODY LEVELS AND ON SPECIFIC CLASSES OF ANTIBODIES.
SEE ALSO: 51.5255234 FOR IMMUNE COMPETENCE OF LEUKEMIC MICE.
51.74641 GENERAL; IMMUNE DEFICIENCY IN TUMOR BEARING HOSTS IN GENERAL.
IMMUNE STATUS OF TUMOR BEARING HOSTS.
51.746418 EFFECT ON ANTICANCER ANTIBODIES.
51.74642 DEFENCE AGAINST MICROBES AND RESISTANCE TO DISEASE IN TUMOR BEARING HOSTS AND DEFENSE MECHANISMS OF TUMOR BEARING HOSTS.
SEE ALSO: 51.75253 FOR EFFECT OF CANCER ON PROPERTIES OF LEUKOCYTES AND PHAGOCYTES IN CANCER.
SEE ALSO: 51.752523 FOR EFFECT OF CANCER ON LEUKOCYTES AND THEIR ACTIVITY.
SEE ALSO: 51.7701 FOR EFFECT ON PHAGOCYTOSIS AND EFFECT OF CANCER ON HOST RESISTANCE TO DISEASE.
SEE ALSO: 51.472 FOR EFFECT OF CANCER ON SURVIVAL OF SUBSEQUENT TUMOR GRAFTS.
51.74643 SURVIVAL OF TUMOR AND NON-TUMOR GRAFTS IN TUMOR BEARING HOSTS AND EFFECT OF CANCER ON DELAYED HYPERSENSITIVITY.
IMMUNE DEFICIENCY IN PATIENTS WITH HODGKINS DISEASE.
ANERGY IN CANCER PATIENTS.

51.74645 EFFECT ON ANTIBODY LEVELS (GENERAL) AND ON RESISTANCE TO INFECTION.
SEE ALSO: 51.7443 FOR EFFECT ON THE LEVELS OF SPECIFIC ANTIBODIES.
51.74646 EFFECT ON CELLULAR ASPECTS OF IMMUNE RESPONSE.
51.74646 ON TRANSPLANTATION RESISTANCE AND ON LYMPHOCYTES.

51.75 OTHER SELECTED EFFECTS OF TUMORS ON HOSTS AND ON SPECIFIC ORGAN SYSTEMS.
SEE ALSO: 51.6 FOR BIOCHEMICAL CHANGES IN TUMOR-BEARING HOSTS.
SEE ALSO: 51.746 FOR EFFECT ON HOST IMMUNOLOGY.
SEE ALSO: 51.76 FOR EFFECT ON HOST ENDOCRINOLOGY.
SEE ALSO: 51.52 TO 51.59 FOR CANCER OF SPECIFIC ORGANS AND RELATED EFFECTS OF THOSE ORGANS.
51.751 SELECTED GENERAL TOPICS.
SEE ALSO: 51.759 FOR MISCELLANEOUS EFFECTS.
51.7511 OPEN.
51.7512 COURSE OF CANCER IN TUMOR-BEARING HOSTS AND EVENTUAL CAUSES OF DEATH.
SEE ALSO: 51.216 FOR PROGNOSIS OF HUMAN CANCER.
51.75121 OPEN.
51.75122 CACHEXIA IN TUMOR BEARING HOSTS AND EFFECT OF CANCER ON TOTAL BODY WEIGHT AND WEIGHT OF INDIVIDUAL ORGANS.
SEE ALSO: 51.20122 FOR CACHEXIA IN ANIMALS.
51.7513 TUMOR-INDUCED STRESS; MECHANISMS CAUSING IT.
51.7515 INFLAMMATION AND RELAE
51.7515 INFLAMMATION AND RELATED CONDITIONS ASSOCIATED WITH CANCER.
51.7516 EFFECT ON HOST OF TUMOR EXTRACTS INJECTED INTO HOSTS.
SEE ALSO: 51.75931 FOR EFFECT OF CANCER SERA ON CULTURED CELLS.
51.75161 GENERAL.
51.75162 IN VIVO STUDIES.
51.75163 EFFECT OF CANCER EXTRACTS ON CULTURED CELLS.
51.752 EFFECT OF CANCER ON THE CARDIOVASCULAR, LYMPHATIC, AND RETICULOENDOTHELIAL SYSTEMS AND ON THE BLOOD AND BLOOD CELLS.
51.7521 GENERAL.
SEE ALSO: 51.75902 FOR AMYLOIDOSIS.
51.7521 NOT USED (SEE 51.765 FOR EFFECT OF CANCER ON VASCULAR SYSTEM).
51.7522 EFFECT ON THE HEART.
51.7523 EFFECT ON CARDIOVASCULAR DYNAMICS.
51.7525 CELLULAR ASPECTS OF THE IMMUNE RESPONSE TO TUMORS.
EFFECT ON THE LYMPHOID AND RETICULO-ENDOTHELIAL SYSTEMS, LEUKOCYTES, BONE MARROW, AND RELATED CELLS (NON-IMMUNOLOGICAL ASPECTS ONLY) AND OTHER CELLULAR ASPECTS OF THE IMMUNE RESPONSE.
SEE ALSO: 51.5252 FOR HUMAN LEUKEMIA AND LYMPHOMA AND FOR PROPERTIES OF LEUKEMIC CELLS.
SEE ALSO: 51.525242 FOR EFFECT OF LEUKEMIA ON THE RE SYSTEM AND ON RE CELLS.
SEE ALSO: 51.74 FOR ALL IMMUNOLOGICAL ASPECTS.
SEE ALSO: 51.746 FOR EFFECT OF CANCER ON HOST IMMUNOLOGY.
SEE ALSO: 51.7515 FOR INFLAMMATORY REACTIONS ASSOCIATED WITH CANCER.
51.75251 GENERAL.
51.752512 EFFECT ON HISTOLOGY OF LYMPHOID TISSUE.
51.75252 EFFECT ON LEUKOCYTES (GRANULOCYTES, LYMPHOCYTES) AND OTHER RETICULOENDOTHELIAL CELLS AND BONE MARROW.
51.752521 GENERAL.
51.75231 GENERAL.
51.75232 VASODILATATION AND VASOCONTRACTION PRODUCED BY TUMORS.
51.752522 TUMOR INDUCED GRANULOCYTOSIS AND KYROCYTOSIS AND FACTORS CAUSING IT (LEUKOPOIETIN AND OTHER GRANULOCYTE STIMULATING FACTORS).
GRANULOCYTOSIS PROMOTING FACTOR GPF AND GPF INHIBITION.
51.752523 EFFECT OF CANCER ON THE MORPHOLOGICAL AND CYTOLOGICAL PROPERTIES OF LEUKOCYTES.
"MALIGNANCY ASSOCIATED CHANGE" (MAC) IN LEUKOCYTES.
SEE ALSO: 53.2532 FOR PHAGOCYTOSIS.
SEE ALSO: 51.7454 FOR EFFECT OF RETICULOENDOTHELIAL CELLS ON TUMORS AND PHAGOCYTOSIS OF TUMOR CELLS.
SEE ALSO: 51.525226 FOR PHAGOCYTOSIS BY LEUKEMIC CELLS.
SEE ALSO: 51.7464 FOR EFFECT OF CANCER ON DEFENSE MECHANISMS IN GENERAL.
SEE ALSO: 51.74642 FOR RESISTANCE TO DISEASE IN HUMANS.
SEE ALSO: 51.73902 FOR PHAGOCYTOSIS BY TUMOR CELLS.
51.7525231 GENERAL.
51.7525232 CYTOLOGY AND MORPHOLOGY CHANGES AND CELL DIVISION.
51.7525233 EFFECT ON PHAGOCYTOSIS ONLY.

51.7525234 LYMPHOCYTE MOVEMENT AND MIGRATION, CLUSTERING.
51.752524 EFFECT OF CANCER ON LEUKOCYTE KINETICS.
51.752525 LEUKEMOID REACTIONS INDUCED BY CANCER.
SEE ALSO: 51.75253 FOR EFFECT ON OTHER LYMPHOID CELLS.
51.75253 EFFECT ON OTHER LYMPHOID CELLS.
51.75254 EFFECT OF CANCER ON THE THYMUS.
51.75255 EFFECT OF CANCER ON THE SPLEEN.
51.75256 EFFECT OF CANCER ON THE BONE MARROW.
51.7526 EFFECT OF CANCER ON THE BLOOD AND FORMED ELEMENTS.
51.75261 GENERAL.
51.75262 EFFECT ON PHYSICAL PROPERTIES OF THE BLOOD.
51.75263 EFFECT ON THE FORMED ELEMENTS.
51.752631 GENERAL.
51.7526311 GENERAL.
51.75263111 RED BLOOD CELL TURNOVER AND KINETICS IN GENERAL.
51.7526312 INCREASED RED BLOOD CELLS.
51.7526313 DECREASED RED BLOOD CELLS.
THE ANEMIA OF MALIGNANCY; HEMATOLOGY AND RELATED IRON KINETICS IN THIS CONDITION.
PHAGOCYTOSIS OF RED BLOOD CELLS IN CANCER PATIENTS.
SEE ALSO: 51.4523805 FOR MURINE ERYTHROBLASTOSIS VIRUS.
SEE ALSO: 51.454426 FOR EFFECT OF ONCOGENIC VIRUSES ON ERYTHROPOIESIS.
51.7526324 HEMAGLOBIN METABOLISM IN CANCER.
51.7526325 AGGLUTINATION OF RED BLOOD CELLS AND HEMADSORPTION BY TUMOR TISSUES AND THE HEMADSORBING FACTOR.
51.7526328 EFFECT OF MALIGNANCY ON RED BLOOD CELLS, CYTOLOGY AND BIOCHEMISTRY.
51.752633 EFFECT OF CANCER ON THROMBOCYTES AND PLATELETS.
PLATELET ANTIBODIES IN PATIENTS WITH CANCER.
TUMOR-INDUCED THROMBOCYTOSIS.
THROMBOCYTOSIS PROMOTING FACTORS (THROMBOPOIETIN) PRODUCED BY TUMORS AND FACTORS IN SERA OF PATIENTS WITH LEUKEMIA.
SEE ALSO: 51.75266 FOR EFFECT ON BLOOD CLOTTING.
51.75264 EFFECT ON PROPERTIES OF NORMAL BLOOD AND SERUM.
STIMULATION AND INHIBITION OF CULTURED CELLS BY CANCER SERUM.
SEE ALSO: 51.75901 FOR EFFECT OF SERUM FROM CANCER PATIENTS ON CULTURED CELLS.
SEE ALSO: 51.6233 FOR SPECIFIC SERUM PROTEINS.
SEE ALSO: 51.5114 FOR LIST OF FACTORS WHICH AFFECT GROWTH OF CULTURED CANCER CELLS.
SEE ALSO: 51.5113 FOR EFFECT ON TUMOR CELL MORPHOLOGY.
51.75266 EFFECT OF CANCER ON BLOOD CLOTTING.
CLOT DESTRUCTION; EFFECT OF CANCER ON BIRINOLYSIS AND PLASMINOGEN, AND RELATED ACTIVATING AND INHIBITING.
THROMBOPLASTINS (POSSIBLY DUE TO LONG CHAIN FATTY ACIDS) IN CANCER TISSUE.
HYPERCOAGULATION WITH INCREASED BLEEDING TIME.
HYPOFIBRINOGENEMIA ASSOCIATED WITH CANCER.
SEE ALSO: 51.752633 FOR EFFECT ON THROMBOCYTES AND PLATELETS.
51.753 EFFECT OF CANCER ON THE MUSCLES.
EATON-LAMBERT-ROOKE SYNDROME OF FATIGUE OF RESTING MUSCLE ASSOCIATED WITH SMALL CELL CARCINOMA OF THE LUNG.
51.754 EFFECT OF CANCER ON THE KIDNEY, BLADDER, AND URINARY TRACT.
51.755 EFFECT OF CANCER ON NON-CANCEROUS INTERNAL ORGANS.
51.7551 GENERAL.
EFFECT OF ASCITES CELLS ON THE PERITONEAL CAVITY.
51.7552 EFFECT OF CANCER ON THE LUNG.
"PUMMICE LUNGS" DUE TO CALCIUM DEPOSITION IN PATIENTS WITH TUMOR-INDUCED HYPERCALCEMIA.
51.7553 EFFECT OF CANCER ON THE LIVER.
51.7554 EFFECT OF CANCER ON THE GI TRACT.
EFFECT OF CANCER ON DIGESTION AND EATING - ANOEXIA.
HYPERSECRETION OF GASTRIC JUICE DUE TO ENDOCRINE TUMORS (ZOLLINGER-ELLISON SYNDROME).
GASTRIC ULCERS IN TUMOR BEARING RATS.
MALABSORPTION SYNDROMES ACCOMPANYING CANCER.
EFFECT OF NECROTIC CANCER TISSUE ON BOWEL EPITHELIUM.
EFFECT OF NECROTIC CANCER TISSUE ON CELL REGENERATION AND DNA SYNTHESIS (NOT FUNCTION AND CELL DIVISION OF GASTROINTESTINAL MUCOSA).
EFFECT OF CANCER ON GASTROINTESTINAL EPITHELIUM AND REGENERATION OF GASTROINTESTINAL EPITHELIUM AND TURNOVER OF MUCOSA.

51.75541 GENERAL.
51.75542 OPEN.
51.75543 UPPER PART; ESOPHAGUS.
51.75544 STOMACH.
51.75545 LOWER GASTROINTESTINAL TRACT OR SMALL INTESTINE.
51.75546 COLON AND RECTUM.
DYSPHAGIA AND ESOPHAGEAL STENOSIS.
51.7556 EFFECT OF NON-ENDOCRINE CANCER ON THE ENDOCRINE AND TARGET ORGANS.
SEE ALSO: 51.3311 FOR UPTAKE, TRANSPORT AND METABOLISM OF EXOGENOUS AND/OR SYNTHETIC HORMONES BY TUMORS AND BY TUMOR-BEARING HOSTS.
SEE ALSO: 51.761 FOR ENDOCRINE-LIKE SECRETIONS OF NON-ENDOCRINE ORGANS.
SEE ALSO: 51.762 TO 51.769 FOR CANCER OF THE ENDOCRINE ORGANS.
51.75561 GENERAL.
51.75566 EFFECT ON THE GONADS AND REPRODUCTIVE ORGANS AND RELATED TARGET TISSUES.
51.755661 GENERAL.
51.755662 IN THE FEMALE.
51.755663 IN THE MALE.
TESTICULAR INFLITRATION BY LEUKEMIC CELLS IN PATIENTS WITH LEUKEMIA.
51.7561 GENERAL.
51.75562 EFFECT ON THE PITUITARY AND HYPOPHYSIS HORMONES.
51.75563 EFFECT ON THE THYROID AND THYROID HORMONES.
51.75564 EFFECT ON THE PARATHYROID AND PARATHYROID HORMONES.
51.75565 EFFECT ON THE ADRENALS AND ADRENAL HORMONES.
ADRENAL HYPERFUNCTION ASSOCIATED WITH OAT-CELL CARCINOMA OF THE LUNG.
USE OF DEXAMETHESONE SUPPRESSION TEST AND METOPIRONE TEST OF ADRENAL FUNCTION.
ORTISOL BINDING PROTEINS IN CANCER PATIENTS OR CORTICOSTEROID-BINDING GLOBULIN (CBG).
51.75567 EFFECT ON THE ENDOCRINE ASPECTS OF THE PATIENT.
51.75569 EFFECT ON THE NEUROENDOCRINE SYSTEM.
51.755691 EFFECT ON THE PINEAL GLAND.
51.756 EFFECT OF CANCER ON THE NERVOUS SYSTEM, THE NERVES, AND THE BRAIN.
NERVE DEMYELINATION AND PERIPHERAL NERVE PARALYSIS IN TUMOR BEARING HOSTS.
51.7562 NERVES.
51.7563 OPEN.
51.7564 OPEN.
51.7565 PROLONGED DRUG-INDUCED SEDATION (PHENOBARBITAL) IN TUMOR-BEARING RATS.
EFFECT ON RESPONSE OF HOSTS TO CENTRAL NERVOUS SYSTEM DRUGS.
PERIPHERAL NEUROPATHY ACCOMPANYING CANCER.
51.757 EFFECT OF CANCER ON THE SENSE ORGANS (EYE, EAR, TOUCH).
51.758 EFFECT OF CANCER ON CONNECTIVE TISSUES AND MINERALIZED TISSUES.
51.7581 EFFECT ON CONNECTIVE TISSUES (GENERAL).
PHAGOCYTOSIS AND DEGENERATION OF ELASTIN BY TUMOR CELLS.
STIMULATION OF CHONDROGENESIS BY TUMORS INDUCED BY INJECTING CULTURED HUMAN AMNION CELLS (STRAIN FL) INTO MICE.
51.7582 EFFECT ON JOINTS, LIGAMENTS, CARTILAGE, SYNOVIA, AND CONNECTIVE TISSUE FIBERS.
51.7583 EFFECT ON SKIN AND EPIDERMAL STRUCTURES.
51.7584 EFFECT ON MINERALIZED TISSUES.
SEE ALSO: 51.68 FOR MINERAL METABOLISM IN TUMOR-BEARING HOSTS.
SEE ALSO: 51.7617 FOR HYPERCALCEMIA AND BONE DESTRUCTION IN TUMOR-BEARING HOSTS.
51.75841 GENERAL.
51.75842 EFFECT ON BONES (OSTEOLYSIS, OSTEOPLASIA).
STIMULATION OF OSTEOGENESIS BY TUMORS INDUCED BY INJECTING CULTURED HUMAN AMNION CELLS (STRAIN FL) INTO MICE.
SEE ALSO: 51.7614 FOR LOSS OF BONE CALCIUM IN PATIENTS WITH PARATHYROID-LIKE TUMORS AND FOR HYPERCALCEMIA ASSOCIATED WITH CANCER.
51.75843 EFFECT ON TEETH.
51.7585 EFFECT ON ADIPOSE TISSUES.
51.759 MISCELLANEOUS EFFECTS OF CANCER AND OF TISSUES FROM CANCER PATIENTS.
51.75901 CYTOTOXICITY AND TERATOGENICITY OF CANCER SERUM.
EFFECT ON SERUM FROM CANCER PATIENTS AND TUMOR BEARING HOSTS.
STIMULATION AND INHIBITION OF CULTURED CELLS BY CANCER SERUM.
EFFECT ON TISSUE CULTURES.
SEE ALSO: 51.7516 FOR EFFECT OF CANCER EXTRACTS.

51.76 INTERACTION OF ENDOCRINE TUMORS (AND ENDOCRINE-LIKE TUMORS) WITH HOSTS AND WITH TARGET ORGANS.
SEE ALSO: 51.3311 FOR UPTAKE, TRANSPORT AND METABOLISM OF EXOGENOUS HORMONES BY TUMORS AND TUMOR BEARING HOSTS.

SEE ALSO: 51.47 FOR CARCINOGENESIS OF ENDOCRINE TUMORS.
SEE ALSO: 51.7556 FOR EFFECT OF NON-ENDOCRINE CANCER ON THE ENDOCRINE GLANDS.
SEE ALSO: 51.634 FOR STEROID BIOCHEMISTRY IN ENDOCRINE TUMORS AND TUMOR-BEARING HOSTS.

51.760 GENERAL.
51.7601 CYTOLOGY AND HISTOLOGY OF ENDOCRINE TUMORS (VERY GENERAL).
51.7602 ENDOCRINE DEPENDENCY OF TUMORS.
HORMONE-DEPENDENCY OF TUMORS BOTH IN VIVO AND IN VITRO (IN CULTURED CELLS).
51.761 ENDOCRINE-LIKE EFFECTS AND SECRETIONS OF NON-ENDOCRINE TUMORS.
ECTOPIC HORMONE PRODUCTION BY TUMORS.
51.7611 GENERAL.
51.7612 PITUITARY-LIKE EFFECTS OF NON-PITUITARY TUMORS.
SECRETION OF ADH BY PATIENTS WITH TUMORS OF THE LUNG AND OTHER TISSUES.
SEE ALSO: FOLLOWING CLASSES FOR SECRETION OF TROPHIC HORMONES SIMILAR TO THOSE NORMALLY SECRETED BY THE PITUITARY (TSH , ACTH , FSH , LH , OR ICSH).
51.7613 THYROID-LIKE EFFECTS OF NON-THYROID TUMORS.
TSH SECRETION BY TUMORS (TROPHOBLASTIC CANCER) RESULTING IN HYPERTHYROIDISM OR THYROTOXICOSIS.
51.7614 PARATHYROID-LIKE EFFECTS BY NON-PARATHYROID TUMORS.
OSTEOLYTIC STEROLS IN PATIENTS WITH BREAST CANCER.
SEE ALSO: 44.161 FOR INTERRELATIONS OF PARATHYROID, CITRATE, CALCIUM, PHOSPHATE AND BONE.
HYPERCALCEMIA IN PATIENTS WITH TUMORS AND PTH -LIKE SECRETION IN THESE PATIENTS.
HYPERCALCEMIC SYNDROME IN RABBITS WITH THE XV -2 CARCINOMA.
CALCIUM LOSS FROM BONE IN PATIENTS WITH CERTAIN TUMORS (MULTIPLE MYELOMA).
SEE ALSO: 51.6716 FOR OTHER ASPECTS OF CALCIUM BIOCHEMISTRY AND METABOLISM IN TUMORS AND TUMOR-BEARING HOSTS.
51.7615 ADRENAL-LIKE EFFECTS OF NON-ADRENAL TUMORS.
SECRETION OF ACTH-LIKE POLYPEPTIDE IN PATIENTS WITH OAT-CELL TUMORS OF THE LUNG AND OTHER NON-ADRENAL TUMORS; CUSHING'S SYNDROME AND INCREASED CORTICOID PRODUCTION IN THESE PATIENTS.
51.7616 GONAD-LIKE EFFECTS OF NON-GONADAL TUMORS.
51.76161 GENERAL.
51.76162 IN THE FEMALE.
51.76163 IN THE MALE.
PRECOCIOUS PUBERTY IN MALE CHILDREN WITH HEPATOBLASTOMAS DUE TO INCREASED GONADOTROPHIN AND TESTOSTERONE SECRETION.
GYNECOMASTIA IN PATIENTS WITH LUNG CARCINOMA (DUE TO INCREASED GONADOTROPHIN PRODUCTION).
51.7617 PANCREAS-LIKE EFFECTS OF NON-PANCREATIC TUMORS.
TUMOR-INDUCED HYPOGLYCEMIA.
INSULIN-LIKE ACTIVITY (ILA) OR A HYPOGLYCEMIA-PRODUCING FACTOR (HPF) ASSOCIATED WITH TUMORS.
HYPOGLYCEMIA IN AKR MICE WITH THE BW-5147 TUMOR.
51.7618 NEUROENDOCRINE-LIKE EFFECTS OF NON-NEUROENDOCRINE TUMORS.
51.76181 GENERAL.
51.76182 THE CARCINOID SYNDROME IN PATIENTS WITH TUMORS OF THE PANCREAS AND OTHER TUMORS AND SIMILAR TYPES OF ANIMAL TUMORS.
INCREASED LEVELS OF SEROTONIN, 5-HYDROXY-TRYPTOPHANE, 5-HYDROXY-INDOLEACETIC ACID, AND HISTAMINE IN THESE PATIENTS.
EFFECT OF TUMORS ON MAST CELLS.
INCREASED SEROTONINE LEVELS IN THE P-815 MAST CELL TUMOR IN MICE.
SEE ALSO: 51.7683 FOR MAST CELL TUMORS.
SEE ALSO: 51.460052 FOR EFFECT OF CHEMICAL CARCINOGENS ON MAST CELLS DURING CARCINOGENESIS.
SEE ALSO: 51.55421 FOR CARCINOID TUMORS.
SEE ALSO: 51.62233 FOR TRYPTOPHANE METABOLISM IN THESE PATIENTS.
51.76183 "HYPOTHALAMIC SYNDROME" (OBESITY, HIRSUTISM, ABDOMINAL AND LOWER EXTREMITY STRIAE) IN PATIENTS WITH LEUKEMIA.
51.76184 HISTAMINE LEVELS IN TUMOR BEARING HOSTS.
SEE ALSO: 51.7683 FOR MAST CELL TUMORS.
51.762 PITUITARY TUMORS (INCLUDING CHROMOPHOBE ADENONOMAS) AND THEIR EFFECT ON HOSTS.
TRANSPLANTABLE HYPOPHYSIS TUMORS (FURTH MTT/F4).
SEE ALSO: 51.7612 FOR PITUITARY-LIKE EFFECTS OF NON-PITUITARY TUMORS.
51.7621 GENERAL.
51.7622 EFFECT ON THE BREAST.
MAMMATROPIN SECRETION BY MAMMATROPE CELLS OF PITUITARY TUMORS.
PROLACTIN SECRETION BY PITUITARY TUMORS (INDUCED BY THYROXINE OR ESTROGEN).

51.7623 PANPITUITARISM DUE TO PITUITARY TUMORS.
51.763 THYROID TUMORS AND THEIR EFFECT ON THE HOST.
TYPES OF THYROID TUMORS.
THYROXINE SECRETION BY THYROID TUMORS.
SEE ALSO: 51.7613 FOR THYROID-LIKE EFFECTS OF NON-THYROID TUMORS.
SEE ALSO: 44.161 FOR INTERRELATIONS OF PARATHYROID, CALCIUM, PHOSPHATE, CITRATE AND BONE.
SEE ALSO: 51.7614 FOR PARATHYROID-LIKE EFFECTS OF NON-PARATHYROID TUMORS.
51.765 ADRENAL TUMORS AND THEIR EFFECT ON THE HOST.
SEE ALSO: 51.5629 FOR NEMOBLASTOMAS.
SEE ALSO: 51.7615 FOR ADRENAL-LIKE EFFECT OF NON-ADRENAL TUMORS.
51.7651 GENERAL.
51.76511 OPEN.
51.76512 CYTOLOGIC, HISTOLOGIC AND PATHOLOGIC STUDIES OF ADRENAL TUMORS.
51.7652 PRODUCTION OF CORTICOIDS BY ADRENAL CORTICAL TUMORS AND THEIR EFFECT ON THE HOST.
SUPPRESSION OF ACTH PRODUCTION AND REVERSAL ON TUMOR REMOVAL.
CUSHING'S SYNDROME INDUCED BY ADRENAL TUMORS.
51.7653 ESTROGEN AND ANDROGEN SECRETION BY ADRENAL TUMORS; FACTORS AFFECTING THIS SECRETION (EFFECT OF HYPOPHYSEAL HORMONES).
51.7654 SPECIFIC TYPES OF ADRENAL TUMORS.
51.7654161 PHEOCHROMOCYTOMAS.
51.7654162 ADRENAL NEUROBLASTOMAS, GANGLIONEUROBLASTOMAS AND GANGLIONEUROMAS.
51.766 ENDOCRINE ASPECTS OF SEX-RELATED TUMORS AND THEIR EFFECT ON HOSTS.
SEE ALSO: 51.6342 FOR STEROID LEVELS IN TUMOR BEARING HOSTS.
SEE ALSO: 51.7616 FOR GONAD-LIKE EFFECTS OF NON-GONADAL TUMORS.
SEE ALSO: 51.555 FOR NON-ENDOCRINE ASPECTS.
51.7661 GENERAL.
51.7662 ENDOCRINE ASPECTS OF SEX-RELATED TUMORS IN FEMALES (ARISING IN OVARIES OR IN SECONDARY FEMALE SEX TISSUES).
51.76621 GENERAL.
SEE ALSO: 51.5552 FOR NON-ENDOCRINE ASPECTS.
SEE ALSO: 51.555 AND 51.556 FOR ENDOCRINE TUMORS (GENERAL).
51.76622 OVARIAN TUMORS.
51.7662201 THECOMAS AND THELIOMAS.
51.76623 EGG CELLS; SEE TERATOMAS.
51.76624 OVADUCTS.
51.76625 UTERUS, ENDOMETRIUM, PLACENTA, VAGINA AND EXTERNAL GENITALIA.
51.76626 BREAST CANCER.
51.7663 SEX-RELATED TUMORS IN MALES (ARISING IN THE TESTIS OR IN SECONDARY MALE SEX-RELATED TISSUES SUCH AS PROSTATE).
SEE ALSO: 51.5553 FOR NON-ENDOCRINE ASPECTS.
51.76631 GENERAL.
51.76632 TESTIS.
51.76633 SPERM CELL TUMORS; SEE TERATOMAS FOR ALL INFORMATION.
51.76634 PROSTATE CANCER.
51.76635 EPIDIDIMUS.
51.76637 EXTERNAL GENITALIA (SCROTUM, PENIS).
51.767 PANCREATIC TUMORS (SECRETING INSULIN OR GLUCAGON) AND THEIR EFFECT ON THE HOST.
SEE ALSO: 51.5547 FOR NON-ENDOCRINE PATHOLOGY AND CYTOLOGY OF PANCREATIC TUMORS.
SEE ALSO: 51.7617 FOR HYPOGLYCEMIA AND INSULIN-LIKE EFFECTS OF NON-PANCREATIC TUMORS.
51.768 NEUROENDOCRINE TUMORS AND THEIR EFFECT ON THE HOST.
SEE ALSO: 51.7618 FOR NEUROENDOCRINE-LIKE EFFECTS OF NON-NEUROENDOCRINE TUMORS.
SEE ALSO: 51.55421 FOR CARCINOID TUMORS AND MAST CELL TUMORS IN MICE.
51.77681 GENERAL.
51.76811 OPEN.
51.76812 VASOACTIVE SUBSTANCES AND PLASMA KININS PRODUCED BY TUMOR.
PRODUCTION OF VASOACTIVE AMINES BY SYSTEMIC MASTOCYTOSIS
PHEOCHROMOCYTOMA MALIGNANT CARCINOID SYNDROME.
SEE ALSO: 51.75232 FOR VASODILATION AND CONTRACTION PRODUCED BY TUMORS.
51.77682 PINEALOMAS.
51.7683 MAST CELL TUMORS AND MAST CELL CONTENT OF TUMORS.
MASTOCYTOMAS.
THE P-815 MAST CELL TUMOR IN MICE.
51.7684 NEUROSECRETORY TUMORS (CAROTID BODY PARAGANGLIOMAS).
SEE ALSO: 51.7618 FOR SEROTONIN AND HISTAMINE LEVELS IN TUMOR BEARING HOSTS AND FOR PRODUCTION OF THESE HORMONES BY TUMORS.
SEE ALSO: 51.646 FOR HEPARIN IN TUMORS AND TUMOR BEARING HOSTS.

51.7685 SEROTONIN AND OTHER TRYPTOPHANE DERIVATIVES.
51.7686 TUMORS OF CHEMORECEPTOR TISSUES (TUMORS OF CAROTID BODY). CHEMODECTOMAS.
51.769 OTHER SPECIFIC TYPES OF ENDOCRINE-RELATED TUMORS AND THEIR EFFECTS ON THE HOST.

51.77 EFFECT OF MISCELLANEOUS HOST FACTORS ON CANCER GROWTH.
SEE ALSO: 51.2 FOR CLINICAL ASPECTS OF CANCER THERAPY AND AGENTS USED.
SEE ALSO: 51.3 FOR PRE-CLINICAL ASPECTS OF CANCER THERAPY AND AGENTS TESTED FOR EFFECT ON CANCER.
SEE ALSO: 51.74 FOR EFFECT OF HOST IMMUNOLOGY ON CANCER GROWTH.
SEE ALSO: 51.7464 FOR EFFECT OF TUMORS ON IMMUNE DEFENSE MECHANISMS IN GENERAL.
SEE ALSO: 51.74211 FOR HOST RESISTANCE (TO TUMORS IN GENERAL).
SEE ALSO: 51.525244 FOR RESISTANCE TO INFECTION IN LEUKEMIA.
51.7702 EFFECT OF PREGNANCY ON TUMOR DEVELOPMENT.
SEE ALSO: 51.3362 FOR EFFECT OF FEMALE HORMONES ON TUMOR GROWTH.
51.7703 EFFECT OF WHOLE BLOOD AND SERUM ON CANCER (GENERAL).
SEE ALSO: 51.51654 FOR REDUCTION OF TUMOR MULTINUCLEATION BY CANCER SERUM.
SEE ALSO: 51.3273 FOR TUMOR-INHIBITING EXTRACTS AND SUBSTANCES FROM ANIMAL SOURCES.
SEE ALSO: 51.744 FOR ANTIBODIES AND ANTISERA AGAINST TUMORS.
SEE ALSO: 51.745 FOR EFFECT OF LEUKOCYTES AND OTHER RETICULOENDOTHELIAL CELLS ON TUMORS.
SEE ALSO: 51.7526 FOR EFFECT OF CANCER ON BLOOD.
SEE ALSO: 51.3273203 FOR THE TUMOR-INHIBITING PRINCIPLE OF GUINEA PIG SERUM.
51.7704 EFFECT OF STRESS (INCLUDING OPERATIVE STRESS) ON TUMOR DEVELOPMENT; INCREASED TUMOR GROWTH IN CELIOTOMIZED ANIMALS (AND INHIBITION OF THIS GROWTH BY HEPARIN AND RESERPINE).
51.7705 EFFECT OF ENDOCRINE STATUS ON TUMOR GROWTH.
51.77051 GENERAL.
51.77052 HYPOPHYSIS STATUS; TUMOR GROWTH IN HYPOPHYSECTOMIZED ANIMALS.
51.77053 THYROID STATUS.
51.77054 PARATHYROID STATUS.
51.77055 ADRENAL STATUS; TUMOR GROWTH IN ADRENALECTOMIZED ANIMALS.
SEE ALSO: 51.7704 FOR EFFECT OF STRESS ON TUMOR DEVELOPMENT.
51.77056 SEX ENDOCRINE STATUS.
51.77057 PANCREATIC STATUS.
51.7706 EFFECT OF NATURALLY OCCURRING INHIBITING SUBSTANCES ON CANCER.

51.8 CANCER IN LOWER ANIMALS AND PLANTS.
SEE ALSO: 51.40 FOR CANCER IN HUMANS.

51.81 GENERAL.
51.811 OPEN.
51.811 OPEN.
51.812 CANCER IN GERM-FREE ANIMALS.
SEE ALSO: 51.46004 FOR STUDIES OF CHEMICAL CARCINOGENS IN GERM-FREE ANIMALS.

51.82 CANCER IN SUB-HUMAN PRIMATES.
51.821 GENERAL.
51.822 IN MONKEYS.

51.83 CANCER IN MAMMALS OTHER THAN PRIMATES.
51.831 GENERAL.
51.832 CANCER IN LABORATORY ANIMALS.
51.8321 GENERAL.
ANIMAL CANCERS SPECIFICALLY USEFUL AS RESEARCH TOOLS.
51.8322 CANCER IN RATS.
51.8323 CANCER IN MICE.
STRAINS WITH HIGH INCIDENCE OF SPONTANEOUS TUMORS.
51.8324 CANCER IN OTHER RODENTS AND LAGOMORPHS.
51.832401 RODENTS IN GENERAL.
51.832402 CANCER IN HAMSTERS.
51.832403 CANCER IN GUINEA PIGS.
L2C/NB LEUKEMIA IN GUINEA PIGS.
51.832404 CANCER IN RABBITS.
THE VX 2 CARCINOMA OF RABBITS.
V2 ASCITES CARCINOMA OF RABBITS.

51.832405 CANCER IN MASTOMYS (RATTUS NATALENSIS) OR PRAOMYS NATALENSIS.
51.8325 CANCER IN DOGS.
51.83251 GENERAL.
51.83252 CANINE OSTEOSARCOMAS.
EPIDEMIOLOGICAL STUDIES.
INCREASED OCCURRENCE IN GIANT DOGS AND POSSIBLE RELATION TO THEIR SIZE.
51.83253 CANINE LYMPHOMA.
INCREASE OF THIS DISEASE IN "BOXER" BREED.
51.8326 CANCER IN CATS.
51.833 CANCER IN FARM ANIMALS.
SEE ALSO: 58. FOR VETERINARY MEDICINE (GENERAL) AND FOR THE RECORDING AND PRECESSING OF MEDICAL DATA AND MEDICAL RECORDS ON VETERINARY DISEASES AND OPERATIONS.
SEE ALSO: 51.452462 FOR THE LYMPHOSARCOMA AGENT.
51.83301 COWS.
BOVINE LYMPHOSARCOMA.
51.834 CANCER IN DOMESTIC PETS OTHER THAN DOGS, CATS, RATS, AND MICE.
51.834 CANCER IN WILD ANIMALS AND IN OTHER ANIMALS NOT INCLUDED ABOVE (ALPHABETICAL).
51.834021 CANCER IN BEAVERS.
51.834031 CANCER IN CHINCHILLAS.

51.84 CANCER IN NON-MAMMALIAN VERTEBRATES.
51.841 CANCER IN FISH.
51.8411 GENERAL.
51.8412 MELANOMAS IN PLATYFISH-SWORDTAIL HYBRIDS.
51.8413 TROUT HEPATOMA.
SEE ALSO: 51.433404 FOR ROLE OF DRIED PELLETED FOOD FED TO TROUT.
51.842 CANCER IN REPTILES.
51.843 CANCER IN AMPHIBIANS.
51.8431 GENERAL.
51.8432 CANCER IN FROGS.
SEE ALSO: 51.453121 FOR THE LUCKE RENAL ADENOCARCINOMA IN LEOPARD FROGS ("SUMMER" AND "WINTER" TUMORS).
51.8433 CANCER IN TOADS.
51.8434 CANCER IN NEWTS, SALAMANDERS, AXOLOTLS.
51.844 CANCER IN BIRDS.
51.8441 GENERAL.
51.8442 CANCER IN CHICKENS.
SEE ALSO: 51.4522 FOR THE AVIAN LEUKOSIS-SARCOMA COMPLEX AND RELATED VIRUSES.
51.84421 GENERAL.

51.85 CANCER IN INVERTEBRATES.
51.851 GENERAL.
51.852 CANCER IN INSECTS.
51.8521 GENERAL.
51.8522 CANCER IN DROSOPHILA (FRUIT FLIES).
TUMEROUS HEAD PHENOTYPES AND MELANOTIC TUMORS IN DROSOPHILA MELANOGASTER.
51.8523 CANCER IN COCKROACHES.

51.86 CANCER IN PLANTS.
SEE ALSO: 51.483 FOR CARCINOGENIC ACTIVITY (IN ANIMALS) OF PLANT EXTRACTS.
SEE ALSO: 51.2271 FOR CLINICAL USE OF PLANT EXTRACTS FOR CANCER THERAPY.
SEE ALSO: 51.3227 FOR PRE-CLINICAL TESTING OF ANTICANCER AGENTS DERIVED FROM PLANTS.
51.8600 GENERAL.
51.86001 OPEN.
51.86002 GENETICS OF PLANT TUMORS (GENERAL).
51.86003 UPTAKE AND FATE OF CARCINOGENS IN PLANTS.
51.8601 CROWN GALL TUMORS.
BACTERIA THAT INDUCE THEM (AGROBACTER TUMEFACIENS).
BIOCHEMISTRY OF CROWN GALL TUMORS.
TUMORIGENIC PRINCIPLE (TIP) OF CROWN GALL TUMORS.
51.8602 TUMORS IN THE WHITE SPRUCE (PINCEA GLAUCA).
51.8603 DEVELOPMENT OF "TUMORS" (DISORGANIZED, RAPID GROWTH) IN GAMETOPHYTIC GENERATION OF BRACKEN FERN SPORES (PTERIDIUM AQUILINUM).
SUPPRESSION OF THIS TUMOR SYSTEM BY L-METHIONINE.
51.8604 TUMORS IN TOBACCO (NICOTIANA) HYBRIDS.
51.8605 WOUND TUMOR OF CLOVER AND THE WOUND TUMOR VIRUS.